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EDITED BY

MARTIN G. BRUMBAUGH, A.M., Ph.D.

CURRENT ACTIVITIES
AND INFLUENCES
IN EDUCATION



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EDITED BY
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CURRENT ACTIVITIES AND INFLUENCES IN EDUCATION

A REPORT UPON EDUCATIONAL MOVE-
MENTS THROUGHOUT THE WORLD

BEING THE THIRD VOLUME OF
"THE ANNALS OF EDUCATIONAL PROGRESS"

25139

BY

JOHN PALMER GARBER, PH.D.

ASSOCIATE SUPERINTENDENT OF THE PUBLIC SCHOOLS OF PHILADELPHIA



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EDITOR'S PREFACE.

FEW realize the significant changes that have occurred in the aim and spirit of the school within the past ten years. In educational affairs the lapse of a decade now marks a new era. So rapid is the general progress of mankind that this is also true of industrial, political, and social life. But the developments in education have this distinctive feature, they are less restricted by the stress of actual conditions than are other forms of human activity. Even under the pressure of modern competition the school finds it both possible and desirable to do something more than fit its pupils for a definite career. This is the answer to those who would insist that schooling need be little more than an apprenticeship for the shop or the counting-house. Nowhere is the world's need limited alone to trained workmen, no matter how great their skill. We need happy, contented workmen as well as skilled workmen. And nowhere shall we rise to the plane of leadership, even in industrial competitions, until we have given to our pupils not only an understanding of specific industrial problems, but also that wider and vastly more significant equipment which enables them to sense the relative value of things about them and easily to find their place in the larger social, civic, and economic environment into which they must enter.

And these larger demands are, after all, more in accord with the spirit of the times. There was a day when knowledge was the only thing demanded of the school. And in a still earlier epoch even this was not deemed the need of all. When the State was everything and everything was for the State, the only training necessary for the masses was that they should learn to obey; and protection was the only right which they could claim in return. But with the growth of wealth among the common people came increase of power and by and by a voice in their own control. With the beginning of constitutional government and the introduction of the ballot, a new order of things was well under way. Now only an intelligent citizenship

was safe for the State. But even yet the welfare of the State was the fundamental idea underlying all theories of government, and the citizen was educated only that he might intelligently help to rule. But there had been a great gain in the worth of the individual over the days when he existed only as a chattel of the State.

Even these theories of government are undergoing remarkable changes—changes which are profoundly affecting our entire institutional life. No longer does the individual exist merely for the welfare of the State. Under the new order of things the State has no warrant for its existence excepting as it promotes the welfare of its citizens. It finds the sanction for its organization, for its control, and for its development only in the will of the people. Thus the responsibility for wise and effective rulership has been lifted entirely from the shoulders of the few and laid upon the minds and the hearts of the many. If any part of our institutional life now fails, it is the fault of the people. This is the answer to the shallow criticism of the school. If the schools are not what they should be, it is because the people are either not prepared or not willing to make them of the best. The same laws apply to the rule of the many as to the rule of the few. Intelligence, liberality, integrity, and zeal furnish the only firm foundation for human progress whether a king or the people are in control. But there is this difference. With the people in control the possibilities for progress or retrogression are greatly increased. Only individual education combined with absolute rectitude will guarantee a progressive democracy.

In this new era, therefore, mere knowledge will no longer suffice. The people must not only know, but they must also have the power and the will to perform. The individual has so greatly increased in worth that we must put all of his possibilities in an efficient school. To do so is no light task. No one place, no one people, can see the way alone. He who would deal wisely with and for the school must be in touch with all. But the school has also both opened and spread beyond its own doors. It is not only influenced by all human activity, but it is also rapidly reaching out to touch all activity with its magic wand. This still further widens the outlook and the field of work.

The friends of the school must vision the world process that has its beginning in the school but which widens out to include the substance of all human effort and all human growth. Only in this way can they wisely see and plan. While much has been written and said along many special lines, little has been done toward this more general view. And the perspective set forth in these Annals should therefore find a large place with all who are interested or associated in any way with these developing educational influences and needs.

We are beginning to realize something of the real value of the school plant in the promotion of education for all the people. This extension of the school for the service of enlightened democracy is not sporadic. It is not ephemeral. It cannot be denied. It has come to stay. We must meet it and organize it into all forms of service compatible with the greatest good of the whole people. The necessity for sane guidance was never so imperative as now. Many suggestions and experiments are under way. The clear-visioned leader has not yet come to the front. Caution with courage is required to conserve the good, advance the best, and dismiss the bad. The evolution of the entire field of school extension, both within the processes of the school and the procedure for adult education, is a fascinating study. To understand it aright these volumes are a valuable guide. Here this evolution, step by step, is set forth, and the present status and future trend of education well indicated.

More fascinating than romance is this story of the struggle throughout the world to unfetter the human mind, enrich the human soul, advance the human kind. To be part and portion of the world enterprise is glorious. To know in a fairly definite way what is occurring along the world-girdling line of advance is inspirational. The author of these volumes has been a faithful courier from the front with messages of moment for you; with assurances of progressive educational gains; with a vision that gives hope and help to those who, with him, are struggling to make education, both as culture and as guiding knowledge, the assured possession of all.

M. G. BRUMBAUGH.

Philadelphia, May 30, 1913.

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CURRENT ACTIVITIES AND INFLUENCES IN EDUCATION

INTRODUCTION.

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EDUCATION, like the inductive sciences from which it gets much of its data, is in a state of constant change. Although there are educational principles and educational interpretations that will always be more or less permanent in their form and value, there is much in ideal and practice that takes on new aspects in the evolution of human affairs. Because of this condition of change, it is well for educators and the friends of education to have their problems and the efforts at their solution restated from time to time. Contributory influences and the way in which they affect these educational problems from year to year need also to be reviewed. Education, which has come so fully to mean preparation for life, is an important phase of the great evolutionary process which permeates all the affairs of men. It is the part of the process which makes it possible for man to progress—to inherit all that is best from the past, to make the wisest use of the present, and, through the medium of these results, to blaze the way into the more hopeful things of the future. And the more clearly the present is grasped the more surely the way to this future good is seen. It is a great world of educational opportunity in which we work. It is a world in which the “impossible” and the “improbable” mean very largely the untried and the unexplored. It is a world in which knowledge pours in from every side, when the trained sense and the open mind are ready to receive it. But all paths are not to be followed and all knowledge may not be received. The past has taught us the need of being receptive; the present is emphasizing the need of our being discriminately so. In the interests of the child a careful, keen, and intelligent outlook must be maintained. }

Our vision is being greatly broadened by the process of education. Things that were not seen before are appearing, and old things are seen in a new light. This gives rise to new standards and to the reshaping of old standards. It is a time when the conservative finds it exceedingly difficult to maintain his poise and judgment, and to face even the appearance of being "old-fogyish" and "unprogressive." It is a time when the new is sure to get a hearing and, unfortunately, often a following, before it has fully justified itself. The spirit of the times is one of change; and the fear of falling behind the forefront of progress often impels to hasty and ill-considered adoption. While there are many lines of progress that are perfectly clear, there are also invitations to leave the well-tried paths that need careful consideration before it is safe to accept. It is the purpose of these Annals to indicate the current of educational activities, and, without assuming positive decisions, to emphasize the movements that seem to be onward, as well as to call attention to the swirling places of retrogression and danger. The great mass of material in the stream of events makes selection difficult but absolutely necessary. If the choice has been well enough made and clearly enough pictured, at least the current of the stream should be evident. And, being evident, it should be full of vital interest and meaning to all who have at heart the possibilities of that great organic, dynamic force—education.

The Year 1912—A General View.

There was some criticism of the public schools during the year; but much of it bore evidence of a lack of familiarity with existing conditions in the schools, or was founded on the exceptional cases which never furnish a safe basis of judgment for either the merits or demerits of any extended public effort. There was also suspicion of commercial exploitation in some of the criticisms—a factor of which the American people have had good reason to beware in recent years. Notwithstanding these evidences, however, there is much in the school conditions and in the school work that needs improvement. No one who knows

the public schools, or the private schools either, for that matter, claims that they are all they should be. All that is claimed is that they are as good as the stage of development and the demands of the respective communities or clienteles involved will permit. While in some respects every school and school system can and should lead its community, in the really determining things only such progress can prevail as the people will support. Probably the most severe, as well as the most just, criticism that can be made against the public school has been its failure to lead the people as frankly and fearlessly into better school conditions as it should have done. Although it is not always easy for school workers to project and support ideals in the face of known or expected opposition, tact and courage often clear the way for these better things. At all events, it is quite clear that both school boards and school workers are employed to serve the best interests of the public, and fear and selfish desire, on the part of either of them, only lower the integrity and value of such service.

In marked contrast to the glaring headlines of some of the articles published during the year concerning the failure of the public school, was a statement in an editorial in *The World's Work* for July, to the effect that "There is no better leadership in any department of American life than the leadership of the best minds now engaged in public educational work." The training of teachers is constantly growing better and the pay for their services steadily increasing. "During the last ten years the pay of male teachers has increased 38 per cent and of female teachers 27 per cent; and the increase goes on. Moreover, everybody who knows the present mood of the educational world and who interprets public sentiment intelligently knows the ever-increasing earnestness of the people about this very subject." And this better pay means that a better type of person is being attracted to and retained in the teaching force of the country. This better teaching force and this better support cannot fail to bring better results. Or, as the editorial referred to states, "The movement for better schools, schools better fitted to the needs of the people, gathers volume and earnestness every year." To this a

thoughtful editorial in one of our prominent daily newspapers has added: "A noteworthy trend in public thought is the constantly widening interest everywhere manifest in popular education. While the school system itself is now in the crucible of criticism, it is likewise experiencing the beneficial impress of the work of competent revisionists, who will certainly succeed in rearing an educational structure fully adapted to the needs of the times. And this work is being stimulated by the readiness with which the taxpayers are voting large sums for the physical needs of the schools. Equally significant and running parallel with the school movement is the extensive special programme planned by secular and religious societies. These activities are tokens of vast import to the republic. They mean that a race of men and women trained for the great problems of the future will be on hand when the children of to-day assume the responsibilities of government."

Probably nothing indicates more clearly the widening field of educational interest than the increasing part taken by prominent educators in public movements, and in the solution of public questions, which have in the past been regarded as practically outside the province of the school. The popular magazines, which are becoming so fully the forum of the people, now have frequent articles and discussions by such prominent educators as Doctor Eliot, Doctor Butler, Doctor Jordan, President Faunce, Jane Addams, Doctor Pritchett of the Carnegie Foundation, and others. And even President Wilson, who has recently enlarged his sphere and province as a schoolman to include the whole of our great nation, manifests a continuance of his interests and desires as an educator by articles that he is contributing for the instruction of the people. And the field of interest of these educators has broadened to include general social activities; questions of peace and of justifiable war; problems of health, of conservation, of political and social economy; considerations of means of proper recreation, of civic betterment, of a higher type of citizenship; and the means for the promotion, in general, of all that tends to improve the morality and religion of the people.

Many are wondering what the school of the future

shall be. Doctor Kerschensteiner and many of his followers in the present vocational trend are convinced that it will be a school whose entire course of study will be permeated by manual work. One thing at least seems quite clear, and that is, that it shall have to provide more nearly for the real needs and capabilities of the largest possible percentage of pupils. Until it is more fully determined, however, what most nearly meets the needs of pupils at the various stages of their development, we cannot be certain that we have solved the problem. In the past much was made of the *nature* of the child, at present everything is being tested on the basis of the *destiny* of the child; and it is quite probable that the school of the future shall so combine these two ideas as to give us a high degree of practical training, built upon a firm foundation of intellectual and spiritual development and the possibilities of human beings for physical health and enjoyable rest and recreation.

Probably no one thing, in the changed and changing conditions of affairs, is influencing school organization and the course of study more seriously than the demand that somewhere during the period of formal education young people shall receive the kind of training that will prevent them from entering upon the serious business of life as mere novices. Questions of earning and spending may no longer be ignored during the twelve to sixteen years of the school's opportunity. That the pupil is permitted to take up the toga of citizenship without the knowledge and skill which will enable him to apply his energies in some desired and desirable direction, is beginning to cast serious reflections upon the efficiency of the school. There was a time when the home provided all the training in these directions that was expected, and the task of the school was the comparatively simple one of providing knowledge and culture according to the demands of the community or the aspirations of the pupil. This was during the days of farm and village life, the days when industries were small and the apprenticeship system fully cared for the youth who would take up a trade, and even very largely cared for those who would enter upon a profession. But social and economic conditions have changed, and indus-

try is conducted upon a scale and under a competition that calls only for the highest skill and efficiency. Wasters of good material and consumers of unearned wages are no longer welcomed for apprenticeship by the industrial world.

As the wages for unskilled labor have not kept pace with the cost of living and the increased demands of a more complex life, the conditions that face the unprepared beginner are far from promising. This is especially true of the girl who is compelled to earn her own living. As the average girl wage-earner of eighteen gets less than six dollars per week, the hardship and temptation involved in a lack of training that makes her worth so little to the industrial and business worlds are not pleasant to contemplate. And, naturally, much of the blame for her poor economic position is placed upon the school. At least, both business and industry claim that this class of workers comes to them with so little practical knowledge and skill as to be worth little for their work. But there is another phase of the problem in which the girl is concerned. She may marry, and that with little knowledge, and less skill, concerning the fundamental things upon which the comfort and welfare of the home depend. In a modern wage-earning home this is apt to be the case. Hence the public is looking to the school for the solution of this problem also. While the school cannot do all, it is undoubtedly the best-equipped agency for doing a great deal. Its opportunity has shifted from storing the mind to training the life. And the public which supports it is looking to it to solve the problem of how best to do this.

But efficiency for participation in life does not depend upon the so-called practical training alone. A good education embraces many things,—familiarity with the conventions and implements of knowledge; a self-discipline which brings the life into helpful accord with the highest social welfare; and appreciation of such ideals of life as the beautiful, the true, and the good; as well as efficiency for meeting the opportunities and duties of life. And no system of education can be complete or successful which does not provide for all of these essentials. The justice of the criticism to which the school has been subjected is found not so much in its failure to do what it has under-

taken well, as in the fact that it has failed to give education a practical as well as an ideal trend. The importance of one side of the pupil's need has been practically neglected, and this has sent him forth too largely helpless in the presence of pressing practical demands. The discouragement and failure due to this too often lead the pupil and his parents to discredit the value of schooling, and education, which should be a continued process, ceases with the compulsory period. Teachers should live in the presence of the fact that they are merely setting in motion self-endeavor and self-desire, and that their work is truly successful only when it is the beginning of a continual educative process. And school administrators fail in their duty when they make no provision for continuation work, or for courses of study which will tend to induce a desire for it. What young people of fourteen really know or can do may not be much, but what they desire and are eager to know is exceedingly important. It is on this broader platform that the educator must build.

The interest in vocational guidance continues. But the whole problem of successfully guiding youth in their choice of a calling is so wrapped up in the general problem of vocational instruction that, until a satisfactory program for the latter is worked out, little can be done in the former. The trouble lies in the difficulty of judging of the real aptitudes of the pupil until he is tried out in actual work. Nor can much confidence be placed in his own choice until he has first secured an adequate basis of interpretation for his inclinations through such work. Local influences, home conditions, and the availability of employment are usually strong determining factors in the choice of an occupation. The interests and personality of a favorite teacher also enter largely into the account. Combined with the immaturity and inexperience of the pupil and the limited field that can be covered in most courses of instruction in such matters, these influences leave but a narrow margin for safe and successful guidance into the field of work that is apt to yield the individual pupil the largest amount of opportunity and success. To utilize this narrow margin to the best advantage before a choice is made, a fairly large field of endeavor should be presented

as helpfully as possible to pupils. As was said in last year's Annals (p. 101), the shop work of the elementary school should bring the pupil into touch with a fairly broad field of industry, so that if he does not *find* himself in one line of work he may in another. The best way to accomplish this seems to be through a series of vocational problems which involve a number of phases of industrial effort. In the secondary work, especially in the latter part of it where the vocational courses must be more clearly defined, the aptitudes should stand out more clearly, and desirable changes of course, or of emphasis upon a specific course, should be easily made.

The interest in the Montessori methods for the instruction of very young children has reached the stage of careful investigation and calmer consideration. A suspicion of commercial exploitation of the work and the material for it has served to cast some discredit upon the plan. However, some of the things emphasized by Madame Montessori will undoubtedly, as a result of her efforts, now receive greater and more intelligent attention. Trained effort to see things from the viewpoint of the child; the importance of dealing with the individual child rather than with the group; the necessity for encouraging and guiding, rather than repressing, natural expression and activity; and a better adaptation of didactic material and pedagogical methods to the self-activity of the child—these are some of the lessons that Madame Montessori has so well reemphasized for both the kindergarten and the lower elementary school. But the most important lesson in the whole Montessori movement, as well as in the widespread interest in the education of backward pupils and defectives, is the possibility of getting much of our pedagogy from a careful study of these beginnings of knowledge and training. That much of our progress in education is now from below upward gives promise of a more vigorous and trustworthy development. It also gives assurance of a better utilization of every possibility of the child, and that as education develops there shall be few wasted human products remaining as a burden upon society.

The demand for a reorganized curriculum and an enlarged activity in our secondary schools continues. This

demand is also reaching down to the seventh and eighth grades of the elementary schools. It is emphasized in both the high school and the higher elementary grades by the fact that entirely too often "the pupil is present but not participating, the community is represented by its sons and daughters but is not helpfully interested." Most of the charges against our schools touch these higher grades of the elementary school, which should be made high school grades, and the lower grades of the high school, which should be combined with them in a classification intermediate between the elementary and the secondary work.

The question of the advisability and the means of measuring the efficiency of public school work received a great deal of attention during the year. The tests of efficiency in industrial and business plants with a general view of securing the largest possible returns for investment and the specific purpose of eliminating all possible waste; the demands for a public accounting which shall be as clear, specific, and comprehensive as possible; and the promise of the scientific age in which we are living of more reliable ratios between cause and effect—these are some of the influences that are at work in educational effort as well as in all other human endeavor. That, so far as education is concerned, the problem involves serious difficulties is evident. But whether they are unsurmountable difficulties is another problem. The chief difficulty lies in securing units and scales of measurement which will answer for the more spiritual part of the influence of teacher upon pupil—the characteristic of successful teaching which is so much farther reaching and permanent in its results than any mere imparting of knowledge. Hence many experienced educators seriously question the ability to go beyond the general judgments and estimates already in vogue in such matters. They point out that the effort to evaluate standards, measurements, and comparisons that would be satisfactorily applicable to the actions and development of human beings, is an entirely different problem from that of measuring the efficiency of the operators of lifeless machinery of the factory or the easily estimated returns of the place of business. The potential powers of the youth whose face is turned in the direction of better things, and

into whose life has been breathed the inspiration to grow and to do, are so limitless that no possible valuation can be placed upon the work of the teacher who accomplishes such results. It is also charged by them that any effort to measure such work, or to compare these results with those of mere knowledge-imparting, would be both unfair and discouraging to such priceless teachers. This thought, they claim, is also emphasized by the fact that all statistics, in so far as they pertain to human beings, are so difficult of digestion and application that, after all, one is driven back upon general judgments of the specific cases under consideration. In the next place, they claim that any determined effort at standardization of results would tend toward a uniformity of school product that would militate against the development of the individuality of the pupil which is so important in all educational endeavor.

The advocates of scientific tests of efficiency claim, however, that, with careful logic, even the deep and far-reaching influences of teaching can be classified, and standards of judgment, based on the opinion of a sufficiently large number of experts to be acceptable, can be established; that such standards of judgment, being inductively secured, will evolve, as in other sciences, with the growth of evidence, and always with the set purpose of meeting conditions as they exist; that such estimating should make more evident the character and value of the work of a teacher; and that, instead of interfering with individual development, it would focus attention upon the pupil in a way that would emphasize his needs and the extent to which they are met. That such standardization of results would do much toward placing education upon a scientific basis, and toward making it easier to demonstrate the results of public school effort to a critical public, is evident. That, in so far as it pertains to such matters as the cost of education, school attendance, and the general school records, there is imperative need for uniform units and scales of measurement, is equally clear. But whether the efficiency of the teacher can be measured with anything like scientific accuracy is still an unsolved problem. The effort to secure a reliable and workable basis for measuring efficiency should, however, continue, especially in view of the fact that cer-

tain knowledge and skill results seem already to be yielding to such measurements.

The most pronounced changes in American life and thought are coming in with the new economic era upon which, as a people, we have entered. We are approaching the period when we shall consume practically all of the food-stuffs that we raise, and when the exports upon which we must rely to preserve the balance of trade must consist of manufactured products. We have passed the pioneer days when we could safely be wasteful of our forests and our minerals and when land could be farmed to impoverishment because there was plenty of virgin soil remaining to be broken. A profound change is taking place in our methods of industry: we are beginning not only to see but to feel the necessity for conserving our resources, and this necessity for conservation is bringing with it a study of methods and management that is rapidly reaching beyond the industrial world. There is promise of greater efficiency in intellectual, social, and religious endeavor as a result of the lessons learned from the fields of industry. Better preparation, greater skill, healthier and safer working conditions, the application of organized thought and effort to management, a better use of raw materials, conservation of sources of supply—all of these are rapidly developing in the material field of industry. Rapid improvements in country life, the replacing of farming in profit and position among the great callings of our country, the passing away of the pioneer era when great fortunes could be swiftly made, the rise in comfort and position of the working man and the artisan, the refreeing of enterprise and opportunity through the removal of the shackles of special privilege, the efforts of the school and the church to adjust themselves to the newer demands, and the many evidences of a true desire to serve—these are some of the signs of the profound changes occurring in the ideals and desires of the people.

The focussing of community interest in the school as a centre of social uplift continues to develop. Never before in the history of the world has there been such a coming together of people into groups representing common interests. One of the great gifts of the city is what it offers

in the way of finding people with whom one can fellowship. The necessary elements are there for every inclination, and it only needs a central influence to serve as a nucleus to bring out and unite individual effort into the larger results of combined effort. The school is a natural nucleus of interest and influence, and its building can well serve as a centre for free expression and discussion of all problems affecting the social welfare. These problems may be along lines of general civic, religious, or even political duty, as well as along the traditional educational lines. All problems are educational which affect human development. There is nothing wrong or inadequate in politics or in anything else which is not the better for having the light of intelligent consideration and effort thrown upon it. In the pioneer days people leaned heavily upon one another, and from the mutual helpfulness fostered by such conditions came the strength that conquered wilderness conditions. As population has increased and the material rewards for individual effort have become more and more available, selfishness has increased until we are living in the presence of foes and forces more dangerous and more difficult of subjection than those overcome by the united efforts of our ancestors. And it is a hopeful sign that once again individuals and groups are coming together into a sympathetic union of effort that should presage ultimate victory. And the school should play a large part in furnishing a centre for such union of effort.

The great public interest of the year naturally centred around the political situation, this being a Presidential year. The prospects of a change of administration, however, had remarkably little effect upon business. It used to be that the prospect of a change in the tariff laws alone would cause great industrial and commercial agitation. But with the change of administration and the promise not only of new tariff legislation but also of a far-reaching readjustment of our industrial system to meet the requirements of the Sherman law, as well as urgent propositions to reorganize our whole financial system, the country has gone on with its work and in increasing its prosperity. Farm values have more than doubled during the last decade, and manufactured products have increased more

than 80 per cent during the same time. And manifestations of confidence in the stability of this prosperity were shown by an increase in bank deposits during the year of over half a billion dollars—the highest point ever attained. As some one has satirically said, "We're a poor distressed country, but we are too busy to stop and think about it." And this, no doubt, is the keynote to our condition as a people. We are substantial, busy, and prosperous, and not easily alarmed by any change of leadership so long as that leadership is vested in one of our own people, trained in our own schools of democracy.

Vice problems in our large cities, especially along the line of the social evil, received an unusual amount of attention during the year. The results of the investigations of the Vice-Commission of Chicago and the evidence of police protection of vice in several of our largest cities have served to arouse thoughtful people to the menace of this evil to the moral and religious life of the nation. Various investigations of the low wages of many women employees, with the temptations resulting from poverty and the allurements of dress which sometimes overwhelmingly possess such poorly paid persons, and the frequent evidences of "white slavery" coming into general notice through the daily press, have served to keep the matter before the public. Strong articles and addresses by well-known persons, who have made a careful study of the actual living conditions of newly arrived immigrants and many of the female employees in our large cities, have also been a large factor in directing public attention to the matter. As a result of all these movements, public sentiment is demanding drastic legislation in regard to the social vice, but especially that every effort shall be made to safeguard in economic, social, and educational ways the young people who are in the greatest danger of falling victims to this vice through ignorance or a lack of training in resisting such temptations. Although opinion is divided as to the best means of providing instruction on the sex questions involved in the educational part of the work, all are agreed that no young person should be permitted to fall in this respect through lack of knowledge of the consequences involved nor from a neglected or perverted will which

might have been guided and developed into more wholesome and vigorous desires and habits.

There was abundant evidence during the year that the churches are getting closer together, not perhaps in their creeds but in their joining hands in a common service, showing that, after all, they are inspired by a common purpose and animated by a common desire to serve the highest good. This coöperation in effort for the well-being of the public is not only leading the various creeds and beliefs to understand each other better, but it is producing the kind of effective work that reacts in the most favorable way upon the workers themselves. As a result, all churches and church people that have shared in these common efforts have been built up and strengthened in their own spiritual life to an extent they have never realized before. This is of special importance because of the great widening of the work of the church. Religion as well as education is rapidly being socialized. While the school, through its various agencies, is carrying its efforts more and more out to the people, the church is endeavoring more and more to find means of drawing the people into its organization. This is because education is as many-sided as the interests of man, while religion, which should illuminate all things, centres all things around one great Supreme Interest. Social unrest, social injustice, the adjustment of business to religion, the multiplication and enlargement of the motives for righteous living—all these must find their enlightenment and inspiration within the area of the preaching of the Word. The great effort of the church therefore is to get people within its organization, and then to lay hold so strongly upon their feelings of responsibility for others that they will strive to get them also into the church.

The desultory war between Italy and Turkey was ended during the year by a treaty of peace which leaves the former country practically in control in Tripoli, Turkey merely retaining a seaport on the Mediterranean. But early in October a desperate war, which has since then been threatening the peace of all Europe, broke out between Turkey and the Balkan states. This has been a severe blow to the cause of arbitration and peace, especially since the war was

practically the demand of the entire population of the Balkans. Because of the rapid development of outspoken democracy, it is beginning to appear that peace or war shall in the future depend more largely upon the sentiments of the people than upon the ambitions or whims of rulers as in the past. This being the case, the great cause of peace can best be served by campaigns of educating the sentiments and raising the ideals of the people. Some believe that an important evolution in these respects has already begun among the working classes and that their enthusiasm for war grows less and less. But an event like the new war with Turkey comes as a great awakening from such beliefs, and reveals the fact that there is still much to be done before arbitration can be relied upon as the solution for all difficulties between nations. And in this great work of educating the people to greater international justice and more peaceful thoughts, the school will undoubtedly play the most important part.

Decided progress was made during the year in regard to matters of health. Several new discoveries for the prevention and cure of disease were announced. But the most important developments in matters of health were along the line of arousing interest in better sanitary conditions and in producing among the people, in general, a better understanding of the laws of health. The school has helped in this work, but not to the extent to which it should. The good results have been more largely due to the enterprise of boards of health, the work made possible by private beneficence, and the devotion to the cause of health of a large number of enthusiastic experts. What has been accomplished by the school has been mainly in the line of rather ineffective health instruction, the opening of its doors in some places after school hours and in the evening for health talks, and through the interest it has taken in physical training and recreation. But the subject deserves a far more important place than has yet been accorded it in the work of the average school. The rapidly increasing interest in the problems of health is entirely in line with the development of our modern humanitarianism. There is a growing conception of the value of human life which encourages the search for the sources and preven-

tion of disease and which demands the enforcement of health laws. Philanthropists, public-spirited citizens, statesmen, social workers, and physicians are now freely giving of their money, their time, and their energy to the solution of problems of health. Although this wide-spread interest, especially as it affects education in this country, began but a little more than a decade ago, nearly all cities and even whole states are now deeply interested in the movement. This means for the school not only a great financial gain, through the shortening of the time required by the great majority of children to complete the course of study, but a great gain in their physical, intellectual, and moral efficiency while in the school because of increased vigor of body and freedom from disease. Measures for promoting sane, every-day, common-sense methods of securing health for the individual, and of safeguarding the community from the dangers of ignorance and recklessness, cannot be too enthusiastically and liberally supported by the people. Nor must the school fail to impart the knowledge, and to endeavor to secure the practices, that will lead its pupils into the ways of health, and moreover to develop the habits that will make them continue to walk therein. The subject is of such importance that the first chapter of this year's Annals is devoted to a consideration of the problems of Health and Health Teaching.

PART I

CHAPTER I

HEALTH AND HEALTH TEACHING.

THERE never has been a time in modern development when interest in the welfare of the body has been so noticeable and so general. Athletic contests have given a high degree of prominence to the possibilities of the body in the way of skill, strength, and endurance; the devastations of tuberculosis and all the various forms of contagious and infectious diseases have called forth the most earnest and devoted efforts of physicians and philanthropists to stay their ravages; public campaigns for better medical training, for the proper care of babies, for careful sanitation, for pure food, for wide-reaching campaigns of instruction and enlightenment in regard to the prevention as well as the cure of disease—all these things are forecasting the time when the body shall truly come into its own. In some respects this is an age of the body rather than of the mind. At all events, we are beginning to see as never before the value of the body in the struggle for success and happiness. And this insight reveals proper care of the whole body as farther reaching in its effects than attempts at the unusual development or skill of some one of its parts. The ways in which questions of health and bodily vigor are affecting efficiency and morality are now recognized as among the most important economic and social issues of the day. They underlie the welfare of organized society in the community and in the state as well as in the family. While individual excellence will always remain the culminating point of any interest in physical development, the true test of progress in care of health is to be found in the broader results of a lower death-rate, in the stamping out of contagion, in increased longevity, and in an enhanced vigor

of all the muscles and nerves. Upon this vigor of the body more than anything else is dependence to be placed for the highest success. For we now know not only that physical vigor is the best of all agencies in warding off disease, but also that it is fundamental to success under the strenuous demands of our modern life.

Nowhere are the benefits of consideration of the welfare of the body more apparent than in school work. The great recreation movement, which is receiving so much consideration everywhere, is an important phase of the many-sided problem of public health.* Recreation, we are learning, is not only a natural need that dare not be ignored, but, under proper conditions, it does more than anything else to develop and safeguard the body. But recreation is only one phase of the problem, and the friends of education have need to widen the boundaries of their vision and to reorganize their efforts for enlightenment and training to include all the problems of health. *Text-book instruction in physiology and hygiene has not yielded the results so hopefully expected.* Much of this instruction has been faulty, full of contradictions, and pointless. Far too little of it has found its way into the life of the pupil. Moreover, it is quite clear that valuable time is lost by waiting till school age to begin the care for the body. Many of the most serious physical dangers and defects menace the body in its earliest years. Later efforts can usually only mitigate, but not eradicate, the baleful effects of early ignorance and neglect. Hence, educators are interested in the child before it comes to school. And, as the real measure of educational success, after all, is to be found in the tests outside the class-room rather than in it, we are also deeply interested in adult life in all of its relations to the body. Questions of public health have therefore a large place in the field of education, and it is extremely significant, as well as extremely favorable, that the public should regard with such intense interest every new movement and every new discovery that looks toward the safety and betterment of the body. And no friend of education can afford to be less interested in the entire subject than is the general public.

* See Current Educational Activities, pp. 23 to 96.

The Mind and the Body.

Many of the theories and much of the practice of the past have assumed that the mind is an airy, intangible thing which is entirely superior to and independent of the body. For centuries these ideas formed the groundwork for all philosophies and all educational practices. Although there has been a decided rejection of this thought, and in many instances a damaging trend in the opposite direction, it still remains true that much of our practice ignores the welfare, value, and influence of the body. Efforts to ignore and mortify the body, in its insistent demands for recognition, that were so common in monastic days, find their counterpart in the man or woman unduly absorbed in business or pleasure, or in those who build upon the kind of idealism that holds the Supreme Mind to be the only reality and all else as but phenomena in the workings of this true entity. To such, questions of the care of the body can be of but little interest. But to all who accept the reality of the physical world and who regard the mind as in some way a real manifestation or agent of the individual's existence, the subject of health is of supreme importance. To such the mind is as real as the body—a matter of substance or entity which in some way forms a part of the organized existence which each of us realizes as the *ego* or self. If we accept this belief, we are confronted by two radically different ideas,—one, that the mind is but a product of the body and entirely subservient to it; the other, that the mind and body are separate entities which in some way interact or parallel each other. The first view makes of us mere automata, and is as radical in sweeping out of existence the mind as is extreme idealism in sweeping out of existence the body. Neither of these views seems justified by our present knowledge. As early as 1879 Professor James predicted that, if the “automaton theory” should ever prove to be true, it would be in a modified form in which our common-sense belief in the power of the mind in determinative activity would be recognized as essentially correct. In point of fact, the trend of thought seems now decidedly in favor of attributing a superior influence to the mind in the struggle between mind and matter, but without in the

least detracting from the weight of material matters in most of the stages and situations of life. Such a view changes the point of emphasis and makes the statement *The body has a mind* read *The mind has a body*—a real physical basis or substratum with which in some way it is intimately associated.

The causal relation existing between mind and body should be as clearly grasped as possible if, as promoters of educational interests, we would fully realize the importance and far-reaching influence of questions of health and physical vigor. Three fundamental theories have been advanced to explain this relation.

1. The first, *the argument for automatism*, has been defined by Doctor Strong, of Columbia University, as viewing the brain-process as the physical basis or condition of consciousness. In other words, that there can be no consciousness which is not in some way called forth and controlled by physical conditions; nor can any form of activity result from this consciousness excepting along the lines suggested by the physical present or the physically recorded past. The arguments in favor of the doctrine that mental states are in all cases the effects of brain-events and which, being merely mental states, cannot therefore ever themselves become causes, are stated by Doctor Strong to be:

(a) The argument advanced by Professor Huxley, that, "if it is proper to speak of the movement which is brought about by stimulating a motor nerve as a function of muscle, it must be proper to speak of the sensation which arises when the current travels in the opposite direction as a function of the nerves." The fact that the one event is physical, while the other is mental, suggests no doubt to his mind as to the exactness of the analogy. Professor Huxley uses as an illustration of his theory changes in the brain *giving rise* to the feeling or consciousness of the *redness* of a red object, and declares that we have as much reason for regarding the mode of motion of the nervous system as the *cause* of the state of consciousness of redness as we have for regarding any event as the cause of another.

(b) Mr. Shadworth Hodgson's arguments for the complete dependence of the mental state upon the physical conditions: (1) Science demands a cause or "real condition-

ing" for all phenomena, and, therefore, any claim of concomitance or mere simultaneity between the mental state and the physical sensation does not meet scientific requirements; to establish such simultaneity demands that at least we shall prove there is no absolute dependence between the physical and the mental condition; (2) on the contrary, there is absolute dependence of the mental state upon the physical sensation, for in the absence of sensation there is no neural process; while we can cause the cessation of a mental state by putting a stop to the accompanying stimulation or brain-event, we cannot cause the cessation of a brain-event by putting a stop to the accompanying mental state.

(c) Such other arguments as "the relations of consciousness to nutrition and blood-supply, as exemplified by the effects of drugs or the necessity for food and air; the results of circumscribed cortical lesions in depriving us of special groups of memories; the unconsciousness that results from serious brain-injury; finally, the discontinuity and fragmentariness of the mental states as compared with the continuity and completeness of the physical."

While all of these ideas emphasize the supreme importance of caring for the body, both in the nature and trend of its activities and in developing it in health and vigor, they naturally minimize interest in the so-called spiritual side of our nature and make the problem of education entirely a physical one. If man is pure body alone, then all of his training must come along the purely physical lines even in such matters as the higher emotions which deal with the beautiful, the true, and the good. This leads us to inquire whether there are not other explanations of the relations existing between mind and body which rest upon equally good arguments.

2. There are two such explanations,—interaction and parallelism. *The doctrine of interaction* assumes the coequal reality of mind and matter, and maintains that, while the body unquestionably acts upon the mind through sensation, the mind, through consciousness and volition, undoubtedly acts and reacts upon the body and the bodily sensations. Doctor Strong calls this the doctrine of common sense, and maintains his claim by saying: (a) We do

not *know* just what occurs when the brain-substance is stimulated—the results vary, sometimes directly and involuntarily following and corresponding to the cause, at other times, through the intervention of volition, either being entirely inhibited or so modified as to have no direct relation to the cause; (*b*) admitting a causal relation between sensation and the corresponding mental state does not prohibit this mental state from becoming itself a cause for any related thing that follows, for “an event which it takes previous events to produce, but which is itself unable to produce anything further, is something unheard of in the physical realm”—asking us to believe that our mental states are impotent as compared with physical events is in opposition to the fact that our volitions appear to us to be as capable of effecting physical results as is any mass of matter; (*c*) causation is probably something more than mere sequence, and, if so, that something more may in this case be conceived as connecting brain events with mental states—but, if causation is nothing but uniform sequence, then as pure sequence or causality may be assumed between volition and movement as between stimulus and sensation; (*d*) the impossibility of understanding just how a brain-event could create a mental state or ensure itself of being followed by a corresponding mental state, does not seem capable of demonstration by any automaton theory; (*e*) in the interaction theory these things are all explained by the presence of consciousness and volition as facts additional to the brain-process, whether we regard them as evolutionary products of physical sensation or as things entirely different which were implanted in the human germ from the beginning—whether, with Darwin, we assume that all adaptations of movement to sensation are the result of natural selection and the survival of the fit movement, or assume, with the Lamarckians, that they are to be explained by ancestral experience and hereditary transmission.

3. *Parallelism* denies all causal relation between the mind and the body, and maintains that the conscious brain-event and the volitional brain-event are both merely the result of the stored-up energy of the nerve-cells, the influences exerted through the blood, the currents from the periphery and from other centres, etc. Two main argu-

ments are used to prove this theory: (a) The argument from the principle of conservation of energy, which holds that, when "we consider any material system of things in isolation from others, the amount of energy, potential as well as kinetic, contained in it is a constant quantity, and is neither increased nor diminished by any transactions between the parts of that system." And this is just as true of the physical world as a whole as it is of any part of it. If this assumption is true, manifestly, any possible physical action of mind is excluded, for the source of any energy is always to be found in the physical facts that precede the effect—neither the mind nor any other factor can be regarded as adding increment to the common store. This view implies that causation is mere sequence of single or combined forces and that all physical events are to be fully explained by physical causes. (b) The second argument for parallelism is contained in the nature of the causal relation, which the theory maintains "is of such nature that it cannot connect physical events with mental, or mental events with physical, but only events of the same order—either two physical or (possibly) two mental events." The assumption here is that matter is not the sort of thing that can be acted upon by mind or anything else that might be assumed to have existence. In other words, the parallelists see an impassable gulf between mind and matter just as the automatists do. It is the gulf which the interactionists bridge by consciousness and volition,—that is, if we admit that it is a gulf at all. Doctor Strong says that parallelism is purely a metaphysical argument dependent upon our conception of the nature of mind and matter and that, as such, its validity rests solely upon the test of how well it accounts for or explains all related phenomena.

While the doctrine of conservation of energy seems reasonable and appeals to most thinkers, there are several respects in which its rigid interpretation is hard to harmonize with ideas that we feel to be correct. In the first place, by a change of direction or a different combination of the same energies we often greatly enhance their *value*. The same energy expended upon gold ore and iron ore produces radically different values. The energy represented by knowledge or skill we regard as of greater worth

in one case than in the other. This is also true of visible *results*. What we call efficiency is simply such a utilization of energies as produces the maximum result with the minimum expenditure of effort. The poorly constructed or poorly adapted machine is wasteful of energy and produces a result which is far less than its more perfect counterpart. Nor can any inclusion of wasted energy satisfactorily explain that we do not have any more in one case than in the other. There is still a third way in which we find it difficult blindly to accept the theory. A change of direction or a variation in combination of energies often materially enhances the *potential* of the same substance and indeed of the same object. The same amount of energy expended upon turning a mass of iron into a multitude of needles gives it a far greater potential than if it were expended upon turning it into any single conceivable object. And the same energy expended upon making square needles instead of round pointed needles would lower the potential force of the energy. In brief, in our efforts to apply the doctrine of conservation of energy, we run across the same difficulty that we have in accounting for how it is possible to get mental results which intuitively we regard as of higher value, of greater efficiency, and of increased potential, from the mere nerve-stimulation produced by material substances and forces.

However, whichever theory we accept,—whether it be that of automatism, parallelism, or interaction,—the importance of the body cannot be greatly overestimated. If it is merely an automaton so fashioned as readily to respond in kind to the influence of substances and forces outside of itself, or if it is a mass of physical forces and materials so organized that it can wonderfully vary the direction and combination of the sum total of physical forces, the importance of so caring for it as to make it best fulfil its purpose still remains one of the most essential tasks of society. However, there are two great advantages for education in the interaction theory. These are, first, that it gives at least equal importance to the development and care of the mental attitude in regard to health as to the development and care of the body itself; and, second, it makes possible the more hopeful outlook contained in the idea that the

mind is superior to the body in its potential reach and, therefore, can be of the highest service in helping to care for the body. In other words, we may be greatly helped or hindered in our efforts in behalf of either personal or public health according as we accept or reject the idea of mind as a more or less distinct and potential force in human welfare.

The Changed Attitude toward Disease.

When Louis XV of France, during his last illness, was told by his physician, La Martiniere, that he had the smallpox, it is said that he made no reply but turned heavily in his bed, threw the coverlet over his face, and a little later said to his attendants, in a heart-broken tone, "I know now the state in which I am, and before long I shall be gathered to my fathers." The news of the nature of his illness soon decimated his court and caused most of his attendants to flee. And a few days later, powerful ruler as he was, he died almost alone from that which was then regarded as one of the most hopeless, as it certainly is one of the most loathsome, of all diseases. This was in 1774, and, although smallpox no longer arouses the terror and hopelessness it did in the days of Louis XV, there are still other diseases which even yet inspire in the minds of the people some of its helpless dread. But important influences have been at work, especially within the last few years, and a changed attitude in regard to disease is being effected. This changed attitude is especially noticeable as it reverses the former belief in the necessity and hopelessness of disease. This change of view is being effected by scientific investigation of the nature of disease, by improved curative measures, but more particularly through a change in the attitude concerning the functions of the physician.

Few realize the resources that are being expended upon the search for the causes of specific diseases, the methods of their transmission, and the means of their prevention, nor the sincere devotion and fearless self-sacrifice of the men who are at work upon these problems. The observation by Jenner in 1798 that most dairy-laborers were immune from smallpox, and his subsequent successful demonstration of

the theory that inoculation with the virus of cowpox is a preventive of this disease, may well be regarded as an accidental though exceedingly fortunate discovery. It was a case, however, in which a keen observer had the intelligence and energy to follow up his observation with persistent and careful demonstration. This was also true of the discovery of anæsthetics, first publicly employed to produce unconsciousness to pain in 1846, a discovery which has so greatly enlarged the field of possible relief through surgery. But such random and unorganized effort cannot be relied upon for progress along any line of endeavor. Besides, where reliance must be placed solely upon observation, many erroneous and wholly unreliable conclusions naturally follow. True and economical progress demands investigation and demonstration that have the greater system and surety of science back of them. So generally did suppuration attend the healing of all wounds that observation had practically determined that it was a necessary attendant of all normal wound-healing. But, when Lister attacked the problem in a scientific way, he soon discovered that suppuration was merely the manifestation of the presence of germ poisoning in the wound, and that instead of furthering normal healing it greatly retarded it. Through careful experimentation he found antiseptics which would destroy these germs, cleanse the wound of their poisonous products, and rob surgery of its fevers and frequently fatal results—a development which later on was to be followed by the discovery that by perfect cleanliness no germs need enter the wound, so that aseptic surgery has now replaced antiseptic surgery.

Lister's work marked the second great advance in surgery. But it also did more, for his discovery was based on a new method which was destined to revolutionize medical standards and practice everywhere. It was this new method to which Pasteur led the way in his great discovery that many of man's most serious ailments are due to minute invisible bodies which, under conditions favorable to their development, attack the tissues and tend to produce disease and death. Although Pasteur's first discoveries were made while investigating the cause of disease in grape-vines and later on in sheep, he was not long

in determining the similarity of causes in the case of human disease. His scientifically trained mind was also well prepared to seize upon and demonstrate the ways in which these microbes or germs can be transmitted from place to place, as well as the conditions most favorable to their transmission. This opened up a new field to medical research, and since that time many of the efforts for public health have been in the direction of isolating disease, preventing its spread, and of giving it no opportunity for growth. His discoveries also prepared the way for isolating disease germs and for experimenting with them with a view of discovering the best means of counteracting their effects and of preventing their attacks. By artificial cultivation of colonies of an isolated germ it has been possible to inoculate animals and reproduce the disease within them. This has made feasible the scientific observations and experiments that have been the chief means for the past thirty years of discovering the best remedial and preventive measures for some of our most fatal diseases. Although the suffering thus entailed on the animals used in the experimenting is to be deprecated, it has been justified on the ground that the necessities of the case demand it; besides, the saving of even one human life would justify the sacrifice of many animals. At least, it cannot successfully be denied that such experimentation has been the means during the last thirty years of a progress in matters of health greater than during all the preceding centuries. This progress has been particularly marked in the way it is *removing the terror and hopelessness of disease*. The more we know of the nature of a disease and of its cause, the more hopeful the outlook for its prevention and cure. Much of the old-time terror in regard to disease was inspired by the mystery surrounding it and the resulting feeling of helplessness in attacking it. Curative remedies that are not based upon an exact knowledge of the nature and cause of disease are subject to all the vicissitudes and errors of all other merely observational knowledge.

There is a strong feeling developing among practitioners against giving any medicine for the cure of disease, excepting such as absolute experiment has demonstrated to be a specific against the encroachment or development of the

disease. This has led to far less use of drugs than formerly, and it is claimed that still fewer would be given were it not for the clamor of patients for something to take whenever their physical mechanism is not running smoothly. Besides the injury that may be wrought by the extensive use of drugs, there is the additional danger arising from the incomplete or hasty diagnosis of the physician who feels that a case is not serious enough to warrant careful investigation. Curative measures that will command the confidence of the public will ultimately have to embrace a care and evidence of knowledge in the diagnosis that will inspire confidence, whether the verdict is medicine or no medicine. But whether the ailment be slight or serious, whether it be real or largely imaginative, the patient is probably on the safe side in appealing to his physician at once in regard to a continued ailment; for too often this appeal is made after the disease has gained such headway as to render the result doubtful and the prospect hopeless. The most favorable results, especially in contagious diseases, are always to be secured from early and prompt treatment. And such insidious diseases as tuberculosis are no longer greatly feared if recognized and treated in their early stages. At least such is the evidence of the records and the statements of the medical experts upon whom we must rely.

But the greatest change in the attitude toward disease is noticeable in the changed view concerning the functions of the physician. The distinguished physician, Earl Mayo, calls attention to this in an article in the *Outlook* for July 20. Medicine, he says, has heretofore been looked upon as "the healing art," and the business of the physician to be to make us well when we are sick. "As our habit has been to give very little heed to our physical state except when we receive unmistakable warning that it is badly deranged, this ideal has been forced upon medical men as a guide of conduct irrespective of any views that they themselves might entertain." But all this is changing. The principal business of the physician of the future will be to keep us well. The evidence of this is to be found in the activity of boards of health in removing sources of disease, in the popular demand for the kind of information and leadership that will promote physical well-being, and in the

emphasis being placed on this phase of medicine by leading physicians, lecturers, magazine articles, etc. This change of attitude toward *the function of the physician* is manifesting itself especially along the lines of—

(a) Emphasizing his duty to be that of leading the people into such a knowledge of the nature, causes, and means of preventing disease as will enable them to avoid its ravages.

(b) Through his researches to gain such a knowledge of the nature of each specific disease as will enable him to detect with surety its presence in its earliest stages, so that the proper remedial measures may be adopted in time.

(c) To do all in his power to remove the alarming mystery that is so often associated with disease and which certain types of medical practitioners are tempted to foster for the sake of magnifying their own services.

(d) Believing that, after all, nature knows best how to combat its own ailments, to seek “to know and to emulate the methods by which nature (meaning in this case the accumulated experience of the bodily organs throughout their entire history) fights disease and tries to overcome it.” It is on this side—in the field of experimental medicine—Doctor Mayo says, that the most wonderful advance of recent years has been made. “It is the work that has been done in this field that has given us a new outlook, a new hope, a new attitude, and in many cases new methods in facing and treating serious bodily ills.”

(e) The corollary of this will naturally be the giving of less medicine and the calling out more and more of the suffering individual's intelligent and persistent efforts in his own behalf. Such a course will have the double advantage of arraying his own will power and intelligence against the further encroachments of the disease, and of fostering physical foresight and practices that will probably do more than anything else to promote progress in matters of health.

(f) To be a student of human nature so that he may be able to call forth a helpful mental attitude not only in the afflicted individual but in the public at large. Professional people have given little consideration to this phase of their work, and, as a result, have missed much of the help that comes from mutual understanding and confidence between

doctor and patient, lawyer and client, teacher and pupil, the leader and the led. Sarcasm and invective never prove as effective against false doctrines, selfish leadership, and the harm that comes from indifference and neglect, as do persistent and tactful campaigns to secure the intelligence and confidence that tend to remove the opportunity for such things.

(g) And, finally, that the physician shall be an apostle of right living, not merely in the avoidance of disease but in securing the fullest development of mind and body. "Men are learning slowly, very slowly, as all great lessons are learned, that a sound body is their best defence; that excesses—whether of work or any other kind—are inevitably weakening; that pure air and exercise, moderation in eating and drinking, and generally correct habits can do for them what no amount of dosing with drugs can ever do." And this right living includes right thinking as well as right acting. Whatever may be the nature of the mind, it is so closely connected or interrelated with the body that its well-being enters deeply into the account. This broadens the field of the physician's work and makes him touch shoulders with education and all the other social forces in his efforts. Like the educator, no matter how limited his field of special effort, he will never get the best results from it without intelligently and sympathetically grasping its place in the larger interests of which it is an integral part.

It is quite clear that *the most promising results for public health can be gotten only by beginning early in life*,—in fact, with the parents even before the birth of the child. American statistics indicate that fully one-third of the babies born die before they reach the age of five years and that, in any single year, from one-fifth to one-fourth of the entire death-roll is made up of infants less than a year old. And the physical risks that the remainder run because of the neglect, ignorance, bad judgment, and weakness of parents and others is not pleasant to contemplate. As a writer in *McClure's* for August well says, why should we worry about a declining birth-rate when more babies are born merely to die? And why should we be anxious to save their lives if they are only to swell the great army of

the defective and diseased? No line of interest is of more importance to the physician and the educator than this, and it is significant that the mind of the public turns more and more each year toward this more promising field of work. But nothing, after all, means so much for the public health as the attitude of hopefulness that is slowly replacing the old feeling of hopelessness and helplessness in the presence of disease. Even the idea that it is "God's will" offers little comfort to pious people who see their loved ones cut off in the prime of their usefulness. "To-day we know that it is not 'God's will' that children should die of diphtheria or young men be destroyed in the flower of their manhood by typhoid fever. We are awake to the fact that it is man's ignorance or man's carelessness that is responsible, and we are inspired to work on toward the glorious ideal set before us by Pasteur when he said, 'It is within the power of man to cause all infectious disease to disappear from the earth.'"

The Newer Medical Education.

This changed attitude toward disease has not only made new demands upon the medical profession, but it has also made necessary new ideals and a change of emphasis in the training of physicians. While the older education emphasized the knowledge and text-book phase of medical training, the newer is insisting upon the importance of trained observation and the laboratory method. It is not that knowledge is not important, and a large amount of it even necessary, but that study and practice must be permeated by the newer spirit which recognizes that so little of absolute fact is known and so much of new insight is possible that every practitioner, worthy the name, must prepare himself for being an intelligent observer and a possible discoverer. There never has been a time when professional men were so thoroughly permeated with the spirit of questioning existing practice, of investigating, testing, and observing for the finding out of new truth, as they are to-day. There also has never been a time when the people were expecting and even demanding so much from their experts as to-day. It is to such influences that

the harvest of criticism of the established order of things is due. It is this, no doubt, which suggested the investigation of the conditions of medical education in the United States that led to the fearless, critical 1910 report of the Carnegie Foundation for the Advancement of Teaching—a report which, in 1912, has very properly been followed by a critical study of Medical Education in Europe, with a view of suggesting improvements in medical education in the United States. This report is pervaded by the spirit of the newer ideals and is made very largely the basis of what immediately follows:

1. In the introduction to this report, Doctor Pritchett, the president of the Foundation, calls attention to the fact that medical education is an *educational* rather than a professional problem. This is evident for two reasons: First, because “the striking fact emerges from the careful study of the problem in any country, that there is an absolute dependence of professional teaching in medicine upon the general educational system of the country itself.” And, second, because, particularly in America, professional education “has suffered from the notion that to train a man for his profession, one must have the viewpoint of the practitioner only, and not the viewpoint of the teacher as well.” And this in spite of the fact that proper training for any profession is more concerned with a high order of reasoning, and the ability to observe facts and to marshal them in proper order so that correct conclusions may be reached, than it is with the demonstrations of a highly trained expert. Definite knowledge and the inspiration of a high order of skill are both needed, but the student’s training, after all, must be self-training; and improvement for him can come only through a clear recognition by his instructors of the educational process by which it may best be obtained. Frail foundations of general education always have and always will mean professional failure. Although occasional brilliant practitioners will arise under such conditions, the profession itself will thereby always be under the ban of an average low training, and subjected to the menace of a mass of ill-prepared men who drag down ideals and gain their livelihood at the expense of the public. Medical instructors who lack pedagogical insight and skill fail to lay

hold of and develop the highest possibilities of their students and are apt to present their subjects in a manner that is wasteful of the time of the class.

Acceptance of the view that such education is not merely a medical matter, Doctor Pritchett says, would involve in the United States a changed condition, especially in the prevailing practice in the teaching of clinical medicine and surgery. While it is now pretty generally conceded that the basic sciences of chemistry, physics, and biology, as well as the more definitely medical sciences of anatomy, physiology, pathology and bacteriology, must be imparted by those who are primarily teachers and who give their whole time to teaching and research work, it has not been so generally recognized that the clinical instruction should be done under the same conditions. Germany is the only country in which a consistent practice is followed throughout; and it is owing to this, combined with the efficient foundation work done in its secondary schools, that Germany's medical training has reached such a high stage of efficiency. Too often in America, he says, the teaching of clinical medicine and surgery is placed in charge of a prominent practitioner who makes it a side issue in his busy life.

2. Thoroughness is to be the keynote of the newer medical training. This is to be attained in two ways: First, by having the basic work well performed before the student is permitted to enter upon his professional career. Even in Germany, with its system of strong secondary schools, a boy is still permitted to enter a medical school without a proper knowledge of the fundamental sciences and with the disappointing hope that he may get this knowledge in the medical school itself. Teachers of medicine readily admit that, to students who have really mastered elementary physics and chemistry and biology, medical education means far more than to those who have not mastered them. Mastery of these subjects gives a higher and better viewpoint; and, besides, it familiarizes the student with the scientific concepts, nomenclature, and methods of reasoning that are so necessary to the proper development of medical ideals and practice. Second, but even if the student enters upon the study of medicine properly trained in the funda-

mental sciences, the problem of the medical curriculum remains an important one. The many allied interests and the number of new discoveries that are constantly clamoring for admission to the medical course create a constant tendency to overburden the curriculum, or to increase the time for it, or both. We have reached a point where it must be recognized that we cannot do everything during the period of formal training, nor dare we unduly prolong the period. The medical curriculum, especially in Europe where it is now extended over a period of five years, "has reached the limits of its capacity; it can contain no more." An overcrowded curriculum creates a tendency to fly from one task to another at such a pace that little time is left for thorough preparation or for serious consideration. Under such conditions a disposition to neglect thoroughness in essentials, and even a tendency to fail to see what are the essentials, develops very rapidly. The important thing in any system of training is that the student shall accomplish certain indispensable minimums and shall at the same time be imbued with a disposition to remedy his own deficiencies both during and after his course. By offering a simplified course, with certain required minimums and important inducements for intensive work in some direction beyond the requirements, the Germans are now endeavoring to secure these results.

3. "The wholesome effect of an examination system at the close of the professional study which shall at one and the same time test theoretical knowledge, ability to think, and technical skill" must not be forgotten. There has been in America a revulsion against badly overdone and badly mangled examination systems which has probably caused us to swing too far in the opposite direction. In the last analysis, the examination has probably disappointed us more in its failure to secure for us good teaching than in its failure to test the standing of the pupil in that which has been taught. Everything does not, of course, yield itself to formal test, but there are certain essentials of knowledge and quality that do so yield themselves, and an efficient educational scheme should always be able to measure up, in recognizable data, to such standards. But these standards must be the recognized standards of

efficiency. Much of the criticism of the school has arisen from its unwillingness to search out and meet the standards set by economic and social conditions rather than from any failure on its part to measure up to its own standards. With right ideals and right methods, the right form of testing for general results should easily be determined and be just as effective as it may seem necessary. "While the examination cannot alone be relied upon to force a high teaching level (or a proper course of study), it is undoubtedly capable of proving a most potent weapon in forbidding incompetent institutions." In England this testing of the efficiency of the medical education is practically placed in charge of the General Medical Council of the United Kingdom, a body composed of 34 members, 5 of whom are appointed by the Crown, 5 by the medical practitioners of the kingdom, while the remainder are from the medical institutions themselves. As this plan has worked well in Great Britain, it raises the question whether any system of schools would not be benefited by having outside persons represented on its examining board.

4. Those dealing with medical education must also see it in its broader humanitarian and social relations and must not fail to have the instruction bear in this direction. "Not only is the whole civilized world to-day bound together in the discussion of all questions of scientific, educational, and social progress, but also the people of a given nation are bound together by their common interest in such questions." This does not mean that the solution of such problems is to form a part of the medical course, but rather that the pupils shall be so instructed that they will see not only the unity in the educational problem but also the relation of their medical course to social service. This bars out the selfish thought of pecuniary gain, and must be accomplished in all education or the nation will inevitably lack not only industrial power, but also social contentment and efficiency. No part of an educational system is to be despised or neglected, and none of the human interests for which it prepares the way may with safety be slighted. And this is true without regard to any large pecuniary returns coming to the individual himself.

In regard to the emoluments of the physician, Doctor

Pritchett says, "In just such proportion as higher standards of admission to the medical schools and higher requirements of admission to practice are enforced, in just such proportion will the body of men who compose the profession come to be actuated by the ideal of service rather than by the ideal of gain." And "the youth who is looking for fortune or the parent who seeks for his son a remunerative occupation should look elsewhere." In Germany physicians' fees are a matter of state regulation and in many cases have been reduced far below what a competently trained physician ought to receive. In the United States, on the contrary, Doctor Pritchett says, a commercial aspect is given to the whole fee question; "because certain successful physicians exact fees wholly out of proportion to the service rendered." This is especially true of the fees charged rich men.

5. The whole problem of fees, standards, and ideals of service has an important bearing upon practitioners for rural districts. One of the arguments most commonly advanced for a régime which turns out a large number of cheaply trained physicians is that it is only in this way that the requisite number of doctors for sparsely settled country districts can be obtained. The weakness of this argument lies in the fact that the cheaper doctor will go where he thinks he can do better, precisely as the more highly trained man will do. And, if he selects the rural district because he is conscious of lack of training, then he should not be a physician at all, and especially in the country, where more than anywhere else he must rely upon his own resources. The country physician, being far away from specialists and hospitals, must have at least the general knowledge of the specialist and must also have the skill and ingenuity that makes his general practice independent of the hospital. "The experience of Germany proves that the distribution of physicians does not depend upon a low standard of education, and that any country can have as many physicians as it can employ at a high, without resorting to a low, level if proper secondary school facilities have been provided." In the United States, however, there is apt to be, under any system, a lack of competent physicians in the country districts unless the State assists in solving

the problem. "A sanitary service, subsidized by the State, will alone render efficient relief in the backward districts without generally demoralizing the profession."

6. The newer medical education is making more and more provisions each year for post-graduate work. Such post-graduate work aims not so much to be helpful to the person interested in research work, which is intensive and original in character, as to give practical assistance and a wider outlook: (*a*) To the busy urban physician and surgeon who are in constant danger of losing touch with progressive developments; (*b*) to those lacking the broadening and stimulating effects of connection with a public clinic; and (*c*) to those who dwell so far from the centres of activity as to be in danger of stagnation. "How much post-graduate instruction can accomplish for any one person is largely dependent upon the quality of his original medical training." Such medical courses are usually brief and recur for most individual practitioners only at somewhat lengthy intervals. "If a man has been poorly trained what he carries away is apt to be superficial, mechanical, and may be perilous; but if he has been trained in the scientific spirit he may gain much by an occasional dip into these waters." What Doctor Flexner, who wrote the main part of the Report, has in mind in this post-graduate work is brief courses, each a few weeks in length, in such things as new methods in physical diagnosis, serology, or vaccine therapy. The best forms that the post-graduate work can take are in his judgment: (*a*) To organize the local medical talent and material and on occasion to import for their instruction the more prominent men within reach; (*b*) extension or vacation courses in the laboratories or clinics of the universities; and (*c*) selected hospitals that are made the centre of more or less regular instruction.

7. The admission of women to the full medical courses is rapidly extending. Access to the medical schools on the terms enjoyed by men was granted to women by the Swiss universities as early as 1876. Despite deeply rooted domestic traditions, the German universities are now also opening their doors to women. Prussia did so at the beginning of the winter semester of 1908. "Economic necessity and social awakening," Doctor Flexner says,

"have overborne the conservative traditions that sought to confine women to the nursery, the kitchen, and the church." Until quite recently women in Germany had difficulty in being able to present the certificate of the nine-year preliminary education that is required for matriculation. This was because they had to procure the required secondary training chiefly through private study and tuition, the cost of which was for many prohibitive. Prussia, however, has since 1908 thrown open its secondary schools to girls.

Co-education is the general practice in medical education on the Continent. "Three hundred women mingle on even terms with three thousand men students in the hospitals of Paris; in Rome, Geneva, Brussels, Upsala, Copenhagen, and the Swiss universities, no distinction whatever is made between the sexes." A long contest in Great Britain has now resulted "in the opening to women all qualifications except those of the ancient universities of Oxford and Cambridge, neither of which will examine women medical students, though Cambridge is willing to teach them." On the other hand, the University of Edinburgh will examine but not at present teach women in medicine, owing to the claim that its present facilities do not suffice for its male students alone. The other Scotch universities, however, provide equal facilities for men and women medical students, and in most of them they work side by side excepting in anatomy. Doctor Flexner says, "It is interesting to observe, as doubtless significant of the quality of the material of which this body of women practitioners (in Great Britain) is composed, that women complete their studies in shorter time than the men." On the contrary, however, the proportion of women medical students who subsequently engage in practice is, at least as far as Swiss experience goes, not large. This is due to marriage and the usual lack of the incentive of necessity.

Health and the Schools.

The new attitude toward disease, which is placing emphasis upon preventing it (*a*) by discovering and removing the causes of ill health, (*b*) by discovering and promoting the conditions of good health, and (*c*) by fostering

the influences that bring about the physical vigor which is the most successful agency in warding off disease, places a great responsibility upon the school. This is true, partly because the child at its most susceptible age spends so many hours of the day in the school-room under all the physically trying conditions that are apt to be presented by the free intermingling and grouping of numbers, but even more largely because the possibilities of instilling helpful knowledge and habit are so much greater in youth than in adult life. The responsibility for providing the conditions and agencies for good health in the schools rests in part upon the school board and in part upon the school executives and the teachers. The school board is pledged to the duty of providing the more or less helpless and physically ignorant child with a safe and sanitary school building, with proper facilities for healthful exercise and play, and with the medical inspection that safeguards against contagion and other menaces to health. The executives and teachers are responsible for such use of these agencies, and of the formal instruction which gives them meaning and purpose, as will tend to lead the pupil into intelligent habits of health. Of course, without intelligent help from the home and sympathetic coöperation from the community much of the benefit of these provisions will be lost. But it still remains true that a properly equipped and properly conducted school will make impressions that, even under the most unfavorable conditions, never entirely disappear. And this is more true of the work of the school than it is of any other single agency; hence, society makes no better investment for public health than through the money it expends for this purpose on its schools.

SCHOOL SITES AND BUILDINGS IN THEIR RELATION TO HEALTH.—It has been estimated that approximately \$70,000,000 are now spent annually in this country for the erection of school buildings; and this does not include the buildings erected for the use of the higher institutions of learning. It follows without the saying that this money should be spent only for buildings that are safe, sanitary, and suitable to the highest possible degree. Anything less than this is a menace to the welfare of the child, an economic and social waste, and a more or less blameworthy

violation of trust on the part of those who have the spending of such public money. The erection of a proper school building involves such matters as: (1) The selection of a site; (2) meeting the various purposes and needs of the school in the best possible way in the building plans; (3) constructing it in a safe and substantial manner; (4) exercising due care in regard to its furnishings and equipment; and (5) giving especial attention to such important matters as lighting, heating, ventilation, and water-closets.

1. *The Selection of a Proper Site for the School Building.*—This is a more important matter than the practice of the past would seem to indicate. Aside from such questions as convenience of access to the greatest number and meeting the modern need for large grounds as far removed as possible from all disturbing influences, arises the important question of the nature of the ground. All authorities now agree that school buildings should be located on soil as free from moisture as possible. The interstices of the soil are filled with air which is subject to motion under the influence of heat and cold just as is the air above the ground. While this movement is slow, it does not prevent cold air from the surface from sinking down and displacing the warmer air of the soil, which then rises above the surface, bearing with it the impurities of the soil with which it has been in contact. The damper the soil the more rapid and the greater the amount of decomposition going on within it, especially under the influence of summer heat. While a loose soil will after a time get rid of many of its impurities, a close and heavy soil will pollute the air with its pestilential effects for a long time. And any soil, whether loose or heavy, which is kept constantly more or less wet by surface water will continually throw off more impurities than a dry soil. These things receive additional emphasis in the fact that the ground beneath a building is usually drier than the surrounding soil; hence, there is a constant tendency, especially in rainy weather, for the ground air to move toward this place of least resistance and there to emerge with its contaminations. This is why there is nearly always a "cellar-like air" to be noticed in unventilated basements and cellars. This is especially noticeable in large cities, where it sometimes seems impossible to avoid

erecting a school building upon "made ground." As this made ground is usually the site of a dump where all sorts of material have been thrown, it is advisable to clear away the made part, especially where the building itself is to be erected. The irrigated regions of the United States experience such a great difference in temperature between day and night, often as much as 30° F., that they have an exceptionally cold heavy air at night, which rapidly drives out the warm air of the soil, with whatever impurities it has gathered up, and fills basements or uncellared ground rooms in a way that demands thorough ventilation before the opening of school in the morning. Great care in the construction of cellars and the means of ventilating them needs to be exercised in such regions.

A matter of great importance in selecting school sites in cities and large towns is to avoid the proximity of noisy factories and railroads, with the additional injurious effects upon children of breathing in their smoke, coal dust, and poisonous fumes. Even vegetation suffers under such conditions. Leaves soon become coated with dust and soot which the rains cannot remove, and the plants languish and the trees die. The leaves are the lungs which in these cases become clogged and fail to perform their functions well. How much greater the injury to the delicate tissue-cells of the lungs of the growing child! It is a matter of surprise that effective protests have not long before this been made against the general violation of cleanliness and the menace to health created by the smoke nuisance. And this is equally true of the annoyance and injury to others that is so often caused by the fumes from certain types of factories. In these days of smoke-consuming devices and possible chemical treatment for destroying odors, there certainly can be no valid excuse for the continuance of these things. At least there is no excuse for erecting school buildings on sites that are certain to be subjected to these annoyances and dangers. Disregard of such matters can only arise from ignorance of the possible injury involved, from the blindness of favoritism, or from a more blameworthy selfish greed. Any attempt of a school board to save money on a school site at the expense of children's health is highly reprehensible. Disregard of their interests

and health in such matters for the sake of sordid gain is criminal.

2. *Planning the School Building.*—School buildings are erected as places of instruction. While many new interests are constantly being introduced to supplement and complement the regular class-room work which should be provided for in the planning, it still remains true that the class-room for regular teaching is the primary unit and the main consideration in all school plans. The size, form, position, and number of class-rooms must always form the basis of the architect's work. Careful investigations made in Germany indicate that, taking into account the normal requirements for vision, hearing, and the depth to which light will carry, the most serviceable and hygienic room is one of about 30 ft. in length, $19\frac{1}{2}$ to 21 ft. in width, and a little over 13 ft. in height. Such a room is intended to seat 50 pupils on double benches. As in America single desks are now in general use, the tendency here is to increase these proportions to 32 by 24 ft. for an average attendance of 40. With ceilings at a height of 13 ft. such a room provides about 250 cu. ft. of breathing space per pupil. A class-room should never be so long that pupils at their seats cannot both see and hear distinctly; and it should never be so wide as to prevent good lighting for the desks that are farthest from the windows. The ordinary speaking voice will carry distinctly to a distance of 30 ft. But teachers should learn to speak in clear, distinct tones, with good enunciation and from the throat, for it is tiresome to have to strive to hear, and the effort brings a fatigue and distraction that are harmful to the pupil. The width of the class-room where unilateral lighting (lighting from one side only) is relied upon, should never exceed twice the distance from the floor to the top of the windows—the Germans maintain that it should not be much over one and a half times the distance. But in northern European countries the winter days are shorter than with us, and we have therefore some advantage in regard to afternoon light and may safely increase the width a little. The area of glass surface required to light the class-room properly should never fall below $\frac{1}{6}$ of the floor space, and $\frac{1}{4}$ is even better. This, and the need of throwing direct light

as far across the room as possible, make it advisable to have the top of the windows approach as near as is feasible to the ceilings.

The number of stories in a school building is a matter of importance to the pupils. Every additional story increases the length of the stairways and makes it necessary for a number of pupils to climb that much higher. For boys this may work no great physical harm; but it places an added strain upon adolescent girls which is especially bad at certain periods, and, therefore, two- or at least three-story buildings should, when possible, be the limit in height. There is an additional hygienic reason for limiting the number of stories, and that is the disinclination of many pupils from the upper rooms, usually those who need it most, to take every opportunity for out-door exercise. As every modern school must provide for a number of interests in addition to the ordinary class-room work, rooms well adapted to these interests must be provided. In addition to the demands which determine their size, shape, etc., ample provision must be made for their ventilation and for keeping them hygienically clean. This is especially true of the auditorium which should form a part of at least one school building in every community centre. Rooms used for laboratory work, for shop work, for domestic science, or for any of the supplementary interests which bring in a more or less promiscuous gathering, need to be fitted up in a way that permits of their being easily and thoroughly cleaned.

3. *Safe and Substantial Construction.*—Of all the buildings in a community the school building should be constructed in a substantial manner. And no expense should be spared in making it entirely safe, not only in case of fire but also in regard to the more hidden things which menace the life in the free mingling and grouping of large numbers in the school. A well-constructed basement, provided with proper means of ventilation and underdrainage, is necessary to prevent the rise of moisture in the walls and of ground air into the class-rooms. Urinals and closets are now generally located in the basement, and they must be provided for in the general scheme of heating and ventilating. In fact, one of the main arguments in favor of

locating urinals in the basement lies in the readiness with which they can be heated and ventilated. This location also makes isolation easy and affords protection from exposure during inclement weather. Play-rooms for use in bad weather should also be provided in the basement. This assures free play in all weather and thus becomes one of the important agencies in promoting good health among the pupils. That a school building of more than one story in height needs to be fire-proof is evident when the age and immaturity of the children housed within it for so many hours of the day are considered.

4. *Furniture and Equipment.*—Usually too little thought and attention are given to hygienic conditions in choosing and arranging school furnishings and equipment. School desks, blackboards, and even the color of the window-shades are of importance in this respect. The ill effects of having pupils work at desks or sit on seats that are either too high or too low for them were treated at some length in the 1910 volume of these Annals. A desk and seat that are readily adjusted by the pupils themselves become doubly necessary where two or more classes use the same room at different times, as in the Gary schools. When possible, blackboards should be placed on the side of the room opposite the windows and never between windows. The tiresome efforts of endeavoring to see work on a blackboard located between windows may result in permanent injury to the eyes. School architects are apt to place blackboards too high from the floor for the children who are to use them. This tends to produce strained positions of the muscles and eyes of the children when they endeavor to write on the higher portions of the board. For the sake of clear and easy vision from all parts of the room, all writing and figuring on the board should be at least an inch and a half in height and very legible. The teacher who writes smaller than this, or in a careless, illegible hand, will be responsible for many errors, much defective eyesight, and a strong tendency to restlessness and misconduct on the part of her pupils. It may be well to add that blackboards absorb a great deal of light and therefore should never be made wider than is necessary. This will be from 28 inches for first-year pupils to 36 inches for

eighth-year pupils and as much as 40 inches in the high school. But the cloak-rooms usually present the greatest menace to the health of the pupils. In the best modern buildings these are separate narrow rooms or corridors, adjoining the class-rooms, and are well heated in order to dry the damp clothing hung in them and well ventilated to carry off the fumes from the drying clothing. They should be connected with the class-rooms but never open into them for ventilation. Cloak-rooms should be well lighted, both for moral safety and because light is of itself a disinfecting influence.

5. *Lighting, Heating, Ventilation, and Water-Closets.*—Heavy demands are made upon the eyes of school children in these days of abundance of reading material, and especially in connection with the teaching of the arts, sciences, and industries. Hence every effort should be made to furnish abundance of light for every part of the school-room, or there will be eye-strain and a fatigue and distress that may lead to more serious physical ills. Fletcher B. Dressler, in the bulletin written by him for the Bureau of Education at Washington, calls attention to two things in this connection that are apt to be neglected. These are that teachers often forget that their pupils are not free to move about the school-room as they are in their homes, and, therefore, must suffer the greater stress that comes from long-continued effort at seeing from the same position in the class-room; and also that our country is so large and has such a variety of surface and climate, that principles of school-room lighting must be varied somewhat to suit the locality. Hence, while a window-surface (actual glass surface) equal to $\frac{1}{6}$ of the floor space is ample in California and the sunny Southwest, this should be increased to $\frac{1}{4}$ in the North, where the winters are long and there are more dull, cloudy days. School-room windows in the latitude of our country, he says, should not face the south, on account of the bright rays of the sun which will find their way into the room and dazzle the eyes of the children. Double shades will prevent this glare, but a busy teacher cannot be relied upon to see that they are always drawn when they should be. An eastern light he regards as best. To prevent cross-lights and hand-shadows while

writing, the light should come from one side and the pupils be so seated as to receive the light from the left. The windows should be placed as close together as possible in order to prevent shadows from their intervening frames and supports. These are often now made of iron and rounded on their edges, as by this plan the windows are brought closer together and shadows avoided. The bottom of the window must be at least as high as the top of the head of the pupil when he is seated, for the same reason. Four feet from the floor is regarded as none too much, especially for older pupils. The best arrangement for shades is to have two sets, both fastened about $\frac{2}{5}$ up on the window, the one arranged to pull up and the other down. Rowe, in his little book on "The Lighting of School-Rooms," recommends a light sage-colored shade, as this color is not light enough to annoy nor dark enough to exclude the light. Walls and ceiling should be painted a light buff tint or a light gray. The woodwork should also be of a light color, so that the rooms may be as free as possible from light-absorbing colors.

There is some difference between this and other countries in the practice in regard to the temperature of the school-room. In England and on the Continent a temperature of 65° F. is regarded as the highest permissible; while in this country 65° and 70° are regarded as the upper and lower limits. Professor S. H. Woodbridge, of the Massachusetts Institute of Technology, explains this difference as being a natural one, owing to our drier climate which permits a freer perspiration, and hence a more rapid loss of the bodily heat, than occurs in the more humid climates of these foreign countries. There is a strong tendency in this country now to lower the maximum temperature at breathing line (the average height of the pupils' nostrils from the floor while seated) to 67° or 68° . This demands, however, that a proper humidity be maintained in the air, through artificial means when necessary. During winter the relative mean humidity of the outside air is about 70 per cent; while in the school-room, heated with hot air which has not been humidified, it will fall as low as 25 per cent. Combined with poor ventilation this low humidity permits a rapid drying of the mucous lining of the nose

and throat, and opens the way for colds, catarrh, adenoid growths, and other serious ailments. Much depends, however, upon the structure and condition of the school-room floor and walls and upon the method of heat distribution. Dampness, at a lower temperature than the room, extracts heat very rapidly; hence such a room would not be comfortable at 68°. Then, too, heated air naturally seeks the top of the room, and, if it finds no outlet there, it cools, and when below the temperature of the ascending air it slowly descends, carrying discomfort as well as impurities with it. If there is no effective way of exhausting this impure air and replacing it with pure warm air, this condition grows worse and calls for more and more heat in order that the body may feel warm. Properly constructed floors and walls, with ducts for the escape of impure air and for the introduction of an abundance of fresh air which has been raised to a relative humidity of from 50 to 65 per cent, the proper operation of these air-ducts being controlled by means of a fan connected with the heating plant, furnish the best remedies for these unhygienic conditions. It is well to remember that overheated air, while not so dangerous as impure air, is just as apt to produce dulness, inattention, headaches, and a low degree of efficiency. This is because highly heated air contains far less oxygen than the same bulk of air at the proper temperature. It also causes an irritating sense of dryness and discomfort in the nose and throat.

Latrines and urinals are now usually placed in the basement of the school building. "With this location much expense is saved in plumbing, better floors can be made, flushing and washing can be done more safely, good ventilation can be more easily maintained, and privacy is safeguarded." It is also the most economical and convenient place for these toilets. But they should be so located in the basement as to be open to the sunlight and always should be thoroughly lighted. Dark corners in these toilets are a moral as well as a physical menace. Any obstruction of the light for latrines and urinals should be avoided, and they should always be constructed to face direct lighting. The floors should be of cement, with a thin coating of hard asphaltum, or other material which is less porous than

cement, to prevent the rise of ground-air into the room. The ceiling should be so constructed as to prevent the possibility of odors reaching the floor above. The facing of the walls should be of light-colored tiling or light glazed brick, to prevent absorption of light and to make it easy to wash down and disinfect. The ventilation of toilets should be downward rather than upward, to prevent odors escaping into the toilet-room. And the ventilating system should always be wholly independent of any other part of the school ventilating plant. The toilets for the teachers, and a few seats for the boys and girls to be used in emergencies, should be placed on each floor of a large school building.

In view of the disgraceful condition of many rural water-closets as revealed in last year's Annals ("Current Educational Activities," p. 126), Professor Dressler's suggestions for the toilets connected with such schools are of great value. These "out-houses," he says, should in the first place be rendered less conspicuous by shielding lattice-work, shrubbery, and vines. Then the urinals connected with them should be in the open air but completely hidden from the playground. "One of the best means of keeping the latrines free from odor is to have on hand a good supply of dust gathered from the roads in dry weather, or fine ashes, to scatter over the excreta. To this end a bin ought to be built in each of such out-houses from which such material can be scooped as needed. It is good civics to teach the children how to use such means of cleanliness and to give them the reasons for using dust, ashes, or slaked lime. Instead of deep pits, or cesspools, it is far safer to have a box underneath the seats, which can be drawn out and emptied as often as needed." He then speaks of one source of grave danger in the South from carelessness in regard to excreta, *i.e.*, the hookworm disease, an enervating, depleting sickness caused by parasitic worms which fasten themselves to the inner walls of the intestinal tract by means of small hooks. They get into the system through carelessly guarded drinking water and food supplies or through attaching themselves to bare feet or other exposed portions of the surface of the body. "The urgent necessity for immediate relief from the vile out-houses so often found in connection with country schools, not to mention

country homes," he says, "is the plain duty of every school board and every parent."

PROVISIONS FOR PHYSICAL EXERCISE AND PLAY.—Play, with all its possibilities in the way of physical benefit and moral development, has been and is yet one of the least used of all our educational resources. School yards entirely inadequate in size and in a condition which practically unfits them for use by the pupils are still a common sight. And this applies not only to large cities where land is costly, but also to places where the acquisition of ample play space would be comparatively easy. There are few places where with proper foresight and management proper play facilities for school children cannot be secured. While in the congested quarters of large cities the price of land is in an occasional instance almost prohibitive, if a school is at all needed, in any case it is likely to be a large one and the benefits and number of people benefited such as amply to warrant the expenditure.

Favorable conditions demand *a school yard large enough for the free out-door play* involved in ball games, running games, and jumping contests; for swings and any other simple out-door apparatus that may be secured; for some trees; and for the school garden that it is so desirable to have connected with every modern school. The school building itself should have a swimming pool and as full provision as possible for indoor recreation in times of inclement weather. The minimum size for a school lot in either city or country is therefore 2 acres; and even in some large cities the aim is now to secure from 3 to 5 acres. Such an amount of ground furnishes opportunity for setting the school building back from the noises of the street and so that all its rooms may have unobstructed daylight. It also affords opportunity for securing good architectural effects—a no small matter in its quiet but persistent æsthetic influence upon the community. Of course, the larger the school, the larger the school grounds should be, although the number of pupils in densely populated areas will often be such that even with the most liberal provision possible it will always be necessary to send the school to play in sections. The public probably does not know, however, that there are still schools in large cities with yards so

small that all their pupils could not at the same time even find standing room in them. This is almost as bad as having no school yard at all, as is still true in some cases, with the resulting necessity of the children having to play in the street. Sometimes schools are not well located, and often a consolidation could be made that would permit a great enlargement of school facilities for the neighborhood; but, where no improvements in these respects can be effected, it has been suggested that all the schools of a city might be located in its suburbs and the children be daily transported to and from them. This, however, seems impracticable and would in any case do away with the free community use of the school plant that is coming to be one of its most valuable features.

As the modern school is to be the recreational centre for its community, provision must be made for throwing the school yard, and the parts of the building devoted to recreation, open for general use after school hours, on Saturdays, and during vacation periods. But this must always be under proper surveillance and helpful supervision. Such a community use of the school plant warrants the spending of larger amounts of the public money on it for its recreational facilities than would otherwise be the case. At the same time it keeps the costly school plant at work for the people and their children throughout the year, and thus greatly adds to the returns upon the money and effort invested. Proper supervision of playgrounds and of all recreations adds greatly to their benefits. Many know comparatively few games; and all need oversight and guidance from experts so that they may not play injudiciously or to poor advantage. Every pupil should be required to play; but the work must be so supervised that no one overplays or attempts things dangerous to his physical condition. Although there is usually a distinct advantage in the class-room teacher's taking part in the play and exercises, there is in addition to this a necessity for general supervision by those who have made a careful study of the subject of recreation, if the greatest benefits are to be derived from it.

The ideal surface for a school yard is grass. But this answers only where the yard is large and the number of

pupils relatively small. Efforts have been made to discover a material for surfacing school yards that would be solid enough to prevent mud and dust and yet not so hard or rough as to injure children when they fall on it or to be unnecessarily hard upon shoes and clothing. Brick, cinders, and even asphalt are not satisfactory on these accounts. Up to the present time cement has proved to be the most satisfactory substance, excepting for the running track around the edge of the playground, where well-crushed, well-rotted cinders should be used. Chicago has been experimenting in its municipal playgrounds with a composition of cork, sand, crushed stone, and asphalt, a mixture which is said to give very satisfactory results. Henry S. Curtis, in his pamphlet on "The Reorganized Playground," says that a sandy loam that is well under-drained makes a very satisfactory surface. "Almost any sort of tennis-court surface, but especially sand-covered clay, is a good play surface." But, of course, such surfaces do not answer so well under the hard usage of a large city school as would a more solid material like the composition used in the Chicago playgrounds.

Mr. Curtis advocates the fencing of the playground, as he says it makes of the school yard an institution "and helps to create loyalties. Besides it keeps the children from trespassing and the yard from being used as a loafing place and to the annoyance of the neighborhood at night. It also makes it easier to supervise the play and to protect the apparatus from the abuse of rowdies." The discipline of an enclosed yard he regards as much easier than that of an unenclosed yard. There need be no fence, however, separating the girls' yard from the boys' provided they are under the proper supervision. "The prettiest fence, and also one of the cheapest, that can be put around a school ground is a woven-wire fence covered with flowering vines. The wire should be close enough, at the bottom at least, so that indoor baseballs will not go through. If rambler roses or clematis or honeysuckle be planted over this, it will be a flower garden set on edge during a considerable part of the year and often the prettiest thing in the neighborhood." Trees, however, should never be planted within the play space of the yard. They are better on the edges

of the yard, or, if the play space is limited for the number of pupils involved, it is better not to plant them at all.

MEDICAL INSPECTION AND NURSES IN SCHOOLS.—Fully 60 per cent of the children in our schools are said to be more or less handicapped by physical defects or physical conditions which could easily be detected and as easily remedied. Wm. H. Allen, in his "Physics and Health," says that 95 per cent of the pupils examined during a single term in St. Paul showed one or more physical defects and that 68 per cent required medical or surgical treatment. In Pasadena, out of 275 pupils questioned, 71 had never been to a dentist, 53 had never used a tooth-brush, 25 slept in rooms with the windows all shut, 88 had much sickness, 57 had trouble with their eyes, 38 often had ear-ache, 60 were seldom able to hear what the teacher said, and 82 usually grew very tired in school. Out of 275,000 pupils examined during a period of two years in New York, 72 per cent showed the need of treatment for one or more physical defects, and these were children of the rich and well-to-do as well as of the poor. There were defects of the eyes, of the nose and throat, of the teeth, of hearing, of the scalp and skin, as well as such as arose from incorrect postures, from sleeping in crowded and ill-ventilated rooms, from having too little or too much to eat or from eating wrong things, and from bad habits of work and study. Principals and teachers do not have sufficiently expert knowledge for the detection of all such defects, although they can discover many of the worst cases and should be trained to do so, especially in places where medical supervision by experts is not easily secured. But the physician and the nurse are needed in the schools for additional reasons. Not only is a physician more competent to examine for physical defects and conditions, but he is also needed to discover and exclude cases of contagious disease and to see that both in the school and in the home teachers and pupils work under sanitary conditions. And he should be authorized not only to report upon health conditions but to insist upon his recommendations receiving every possible attention. During the late war between Russia and Japan, the one supreme authority in the Japanese campaign was the army-surgeon. And his

authority and care proved to be a large factor in the Japanese aggressiveness and endurance. But the nurse is also needed to assist the physician and to see that his instructions are carried out by following the child, when necessary, into its home. A tactful, sympathetic nurse can often accomplish in her "follow-up" work in the home a transformation of conditions in behalf of the child. The physician should arrange to give systematic instruction to both teachers and parents on subjects of health and sanitation. This instruction should take the form of practical talks free from all abstruse terms and explanations. The nurse, aside from the assistance she renders the physician in his work, can be of great service to girls at the age of puberty and in treating many of the minor ailments and accidents which arise in every large school.

Besides being in accord with the growing conception of the value of human life, medical inspection is of great economic value. It requires on the average 9 years for the child with enlarged adenoids to complete an 8 years' course of study. As a result he wastes a year of time and is usually less well prepared than a child who can breathe normally. Besides, if his schooling is costing \$25 per year, this amount, in his case, is lost to the school system where he is educated by the extra year required. In a large city with a number of such cases in the schools, it would be possible to pay for the most effective medical supervision and still have money left out of the funds saved by the prompt removal of all the physical handicaps that prolong the period required to complete the course of study. And this takes no account whatever of the waste of time and efficiency fastened upon these pupils by these physical defects. Nor does it consider the great loss to the State through the lowered return in effective citizenship that it thus gets from these young people. Adenoid nasal obstruction necessitates breathing through the mouth, and is responsible, according to medical authorities, for such serious handicaps as chronic nasal catarrh; chronic inflammation of the middle ear, which leads to defective hearing; malformation of the nose, palate, and upper jaw; chronic sore throat; and tends toward flat chest, stoop shoulders, indigestion from swallowing mucus, poor nutrition, and

many of the nervous disorders arising from reflex irritation. This is a long array of serious charges to lay against a defect that almost invariably yields to treatment, or is easily remedied by a very simple surgical operation. As mental dulness is a natural result of such physical handicaps, removal or satisfactory treatment of adenoids is always followed by an improvement in the intellectual and moral development of the child. But adenoids are only one of the many physical defects that demand the attention of the school and its medical expert. The effects of decay of the teeth are now known to be more serious than most parents realize. In lowering of the general health through the imperfect mastication that follows the loss or decay of a number of teeth, in the increased danger from putrid and germ-laden food that tends to collect in the cavities of decaying teeth and to be swallowed with the other food, and in general defective mouth conditions in children, the necessity of care of the teeth is readily seen. The medical inspector, however, more than justifies any reasonable expenditure for his services in the way he is able to avoid the spread of contagious diseases. In this way it is possible for him to save much suffering and many precious lives. And, incidentally, he is avoiding the necessity of much absence through sickness, and thus again economizing in the period required for completing the course.

Because of the difficulty of establishing effective *medical inspection in rural and semi-rural districts*, teachers should be trained, even more carefully than in the cities, to detect from the appearance and action of the pupil the presence of defects or of contagious disease. The attention of parents and of the local physician can then be called to each case. In larger school centres nurses can perform this service, although even then the value of the teacher who knows and is quick to see is very great. Some States now require such training for all their teachers. An important part of all such supervision of the health of pupils is the way in which parents are notified and the care with which every case is followed until proper action is taken by them. Strange to say, some parents are so indifferent, or so mercenary, or so imbued with a false sense of

their rights as against the rights of their children that they resent such vigilance upon the part of the school. Although an injudicious or over-zealous medical inspector or teacher is sometimes at fault, parents in general, especially when they understand, welcome such careful oversight of the health of their children. However, no medical inspector, nurse, or teacher should get into the habit of seeing disease everywhere and in everything. It pays to be looking for good health, even if it has to be visioned beyond the physical defect or disease.

HEALTH INSTRUCTION.—There is one main purpose in all of the health instruction in the schools, and that is, the development of intelligent habits of health. A healthy mind in a healthy body has been a favorite phrase in the mouths of educators for many years; but it is only within recent times that the demand has grown insistent that health instruction shall result in actual health activities, that disease shall be prevented as well as cured, and that the incomplete or even imperfect work of nature shall have all possible assistance. It is claimed that 40 per cent of the deaths among children are due to preventable disease,—diseases whose causes are traceable to ignorance and neglect. Of those who are saved, many are unable to cope with their more robust fellows, or have physical habits or organic affections that seriously handicap them for either success or the full enjoyment of life. The school therefore has clearly two duties to perform. One is to assist in preventing physical defects and disease; the other is to assist in furnishing the information and training that will help to make and keep the body well and strong. One is to furnish health information and training to the child while it is in the school; the other is to assume a helpful attitude in regard to its health while it is in the home, as well as while it is in the school. The former instructs the child, the latter safeguards the instruction and the child. The former requires well-selected facts and a strong appeal; the latter, tact and true interest in the welfare of the child. But the school has also a third duty to perform, and that is, to point out and assist in remedying physical defects by giving the home all necessary information and assistance, and the

child the kind of instruction which will make him intelligent and persistent in helping himself in their remedy.

Effective health instruction is one of the most important duties of the school. Not only is there an imperative need of convincing the community that without sanitary school buildings, ample provision for recreation, and thorough health supervision satisfactory educational results cannot be obtained, but there is even greater need of enlightening the school to the fact that, without the health instruction that produces well-informed, well-trained pupils, the most promising citizens cannot be produced. Instruction that tends to promote in the pupil the physical efficiency, the longevity, the joy coming from vigorous physical life, also promotes the intellectual work and is sure to exert a far-reaching influence on the spiritual life. Proper physical training in the school not only furnishes information which fosters the habits of health that tend strongly toward success, but it also interests the individual in the promotion of the health of the community in which he lives. And this social side of health teaching should be far-reaching in its influence and results. When tested by its actual results, *the health teaching in the schools has not been encouraging*. This has no doubt been due to: (1) an imperfect or incomplete study of the psychology of the subject; (2) to a poor selection of material for the work; (3) to mistakes in method; and (4) to imperfect preparation and the lack of interest on the part of teachers.

1. *Psychology of Health Instruction*.—Like in morality the personal equation enters so largely into the health instruction that it is not always easy to predict final results. It is comparatively easy to appeal to the pupil's memory of facts, but often exceedingly difficult to get him to assimilate these facts in a way that will make them control his life activities. Nor is it usually wise to attempt to connect didactic moral instruction with the teaching of physiological facts. The child's own observation will so often seem to contradict the teacher's ethical aim that confidence in the instruction will be undermined. The pupil is usually quick to sense a hygienic situation which is forced for the purpose of conveying a moral lesson, and takes little vital interest in material which is artificial and not closely allied

to natural instincts and interests. These natural interests centre around health as a means of attaining to strength and beauty, and not in health as an end in itself. The mechanism of bone and muscle has no real meaning to the boy until he sees their relation to the stature, skill, and endurance which will win for him in the life which he visions as his highest goal. A healthy skin, well-nourished, well-disciplined nerves, and care in regard to the functions of life gain both meaning and force with the girl as she sees their significance in adding to her social charm and influence. And in each case examples and ideals are needed. For this reason the teacher should always be as worthy an example of physical health, vigor, and attractiveness as possible. When the hero-worship period of youth is reached, an abundance of favorable material is at hand for stimulating the pupil to the health-practices which should grow out of all the health instruction. But the influence of environment can also be called upon for this stimulation. In habits, gait, bearing, self-control, temperament, personality, the child imitates some example and emulates some hero, and the wise teacher makes valuable use of these facts.

Pupils are fortunate who receive their health instruction in a room where there is an excellent class spirit, or in a school where the whole atmosphere speaks of cleanliness, hearty good will, and co-operation, and especially of the determination to make it a winning school in every desirable thing. With confirmation in every part of the environment of the school itself, the instruction will receive additional meaning and force. But this is also true of the environment in which the pupil lives in the home and in the community. Unless the work of the school possesses great merit and strength, the apparent contradictions in the home and in the community will be apt to control the pupil's final conclusions and actions. The greatest safeguard against such yielding is intelligent habit. Few of us realize the extent to which we are creatures of habit. This emphasizes the importance of having the child grow up with right habits. The habit of coming to school clean and neat, refreshed by proper rest, strengthened by the consciousness of a body full of life and vigor, and

cheered by the prospect of agreeable work and associations, soon establishes a bulwark that adverse conditions outside the school find it hard to break down. To accomplish the best results the home and the school must work together. They must both remember that their instruction and exhortations must be positive rather than negative. The habit of saying "Don't" often keeps the very thing in mind which we desire to eliminate from the mind, and thus adds to its seductive influence. Besides, those addicted to the use of such negatives usually announce their decrees in a way that naturally arouses antagonism—the personal assertion of freedom of the will. Nor must any great emphasis be placed upon disease. Young people must not be made self-conscious or morbid. Good health and its benefits are to be dwelt on, rather than disease and its disastrous results. And the importance of good health receives additional force and meaning by studying its social effects as well as its personal. Young people are controlled to a great extent by their social instincts. This fact should be put to full use by teachers in emphasizing the social significance of the pupil's own good health, as well as the importance of his taking an interest in community health. Besides, emphasizing such community interest always has a reflex influence upon pupils in regard to their own health. In these social instincts is also found the best basis for emphasizing the ethical influences that are so closely allied to good health. Soap has been called the great civilizer simply because cleanliness of body goes a long way toward respectability of life. Laxity of purpose, whether it be intellectual or moral, usually shows itself first in lack of cleanliness of body. Physical vigor and courage are also closely related. It requires a great stock of moral courage to overcome fear or the consciousness of lack of physical strength and endurance. Good health in either a school or a community means greater usefulness, better citizenship, higher intellectual and moral standards.

2. *Subject Matter for Health Instruction.*—The material for proper health instruction is so abundant, and usually so near at hand, that its selection is largely a matter of exclusion of the obscure and less important and a judicious arrangement of the things that are essential. For

the kindergarten and the younger pupils of the elementary school, the best material is found in the daily interests and activities with which they are intimately associated. The home life, the daily work in school, the lunch period, the activities of the playground, and the occurrences while going to school and returning from it, furnish the best possible basis for the health work. Such material is concrete, full of material interest and appeal, and, at least in its essential teachings, within the comprehension of the child. To this can well be added observation of the more familiar life of the community and the development of a helpful interest in it. When such matters as the cleanliness, appearance, and personal habits of those he meets are made a matter of interesting observation and thought by the child, care in regard to his own hair, teeth, fingernails, and spitting is usually easy to develop. As soon as the child comprehends that sneezing when one has a bad cold will forcibly eject and scatter the germs of the disease into the air, it should not be difficult to get him to place a handkerchief over his nose when sneezing. When he realizes that the germs of tuberculosis and catarrhal troubles are contained in large quantities in the spittle of people suffering from these diseases, spitting is easily understood to be not only nauseating but dangerous. And some knowledge of germs, how they act, on what they live, and how they get from place to place, may profitably be made a part of the instruction, especially as the children grow a little older. In this connection the spread of disease by means of flies, mosquitoes, rats, and vermin in general can be made a matter of strong appeal.

New York City uses upward of a million quarts of milk each day, and, if this milk should be full of disease germs, the results might be even more disastrous than if an army swept down upon the city and laid it low with the sword. The importance of milk being rich in nutriment is also seen in the fact that the lives of thousands of babies are dependent upon it. Hence such matters as food supply and food quality form an important part of the work as pupils grow older. Simple facts about the mouth as a place of possible entrance for disease germs; in regard to the condition of the teeth, both as to cleanliness and in

their relation to the proper mastication and digestion of food; concerning the eyes and a lack of their care leading to headaches and serious nervous disorders; some appreciation of that delicate instrument the ear; the effects of mouth breathing and importance of living in an atmosphere that is not overheated or too dry, and which is as free as possible from impurities so that the delicate mucous lining of the nose and throat may be kept in a healthy condition; but especially such a cultivation of the habit of judicious care of the nerves in nutrition, in work, and in play as will fill the life with poise and reserve power—all of these furnish important and legitimate subject-matter for the pupils as they advance in their course. For high-school and college students the work in physics, chemistry, and biology permits a valuable extension of experimental and laboratory methods in physiology and the underlying principles of the laws of health. For college students, especially those who purpose taking medical courses, the work in these courses and in the scientific method of approach to problems of health, needs to be emphasized. Experimental methods for pupils below the high school must naturally assume the form of demonstrations by the teacher, in which demonstrations, however, one or more pupils may be asked to take part for the sake of bringing the subject as near as possible to the child.

In the selection of subject-matter for the lessons in health, it is well to bear in mind that the whole tendency of nature's processes in childhood is toward nutrition and that it is not until the period of adolescence that nature makes any great effort to develop the size and functions of the brain. All the lessons of early life should therefore have a more or less direct connection with the things which promote or interfere with the growth and vigor of the body. As the pupils grow older, the connection between climate and food and clothing; the relation of occupations to health; the association of health with character and social relationships; the dependence of effective citizenship upon good health; and all the various elements which enter into and flow out of the matter of health as it leads human beings to be either a burden or a blessing to themselves, to their loved ones, to their community, to their country, should receive emphasis.

3. *Methods.*—Some of the important principles that need to be observed in the methods of instructing in matters of health are as follows: (a) Although there should be well-organized, systematic attention paid to health instruction, like in the teaching of morals some of the most impressive lessons will be those that arise in an informal way. There should be provision made in the course of study for information and demonstration in regard to the body, its functions, and proper care; but the applications that are made of what is learned to the incidents and routine of the daily life will always prove to be the most valuable part of the instruction. *All health-teaching must be associated directly and persistently with right living* or it will be fruitless in its results. This association must be both individual and general—it must deal with the personal habits of each member of the class, as well as with people and conditions in general. This necessitates interest and clearness in the class-instruction, sympathy and tact in applying the instruction, and help when there is individual need of it. Although it is usually much wiser to emphasize the economic and social value of good health habits than their moral effects, so many phases of injudicious and injurious physical action infringe upon the ethical life that it is difficult to keep the two entirely separate. However, as a rule, the moral phase of the subject yields its best results in the private interview. But even here care must be exercised in regard to overstatements and unwarranted conclusions. Care must also be exercised so that the example of the teacher and the condition of the class-room and building evidence due interest and belief in the instruction given. Most of the pupils will take as their model what the teacher does and appears to be rather than what he says or would have them to be. It is very difficult to get pupils to avoid eye-strain and the breathing of impure air in an imperfectly lighted and badly ventilated class-room. The one method that accomplishes more than all others is the silent but continuous teaching established by good example.

In all the instruction it is well to remember that physiology and hygiene have a concrete basis, and that therefore observation and experiment can greatly assist the understanding. And there must be clear comprehension if the

lessons are to be impressive. With a few well-known physiological facts as a foundation, it is comparatively easy to connect many of the simpler ill-health results and dangers with their causes. This usually makes possible the emphasizing, in a concrete way, of the need and value of observing the underlying hygienic law. But the test of the results must not be looked for in the ability to connect physical health effects with their cause, nor in any amount of clearly apprehended information about the body; rather it is to be found in the way this insight affects the daily life of the pupil. Probably the best test of the interest that the community takes in the matter of health is seen in the condition of its children. That this interest is not yet uniformly intelligent or great is particularly evident from an inspection of the children in our rural or semi-rural schools, although it is also revealed in the conditions and habits that prevail in the homes and streets of most of our American towns and cities. Publicity and a constantly swelling tide of information and effort are, however, accomplishing much, and there is a marked improvement in these respects going on in most places. The school is one of the most valuable agencies in the spread of this good work. Each well-trained, well-informed, thoroughly interested pupil sent from the school into active life becomes a centre of right influence in these directions.

4. *Training of Teachers for Health Instruction.*—To produce such pupils, not only well selected matter of instruction and proper methods must be used, but well-trained teachers who realize the importance of the subject must be found in every class-room. Too many teachers at present have but a very imperfect knowledge of the physiological processes and their relation to health and disease. But even more are absolutely without training in discerning even the plainest evidences of physical defects and disease. This is no more than might at present be expected. Widespread interest in the subject of health, especially in the securing of practical results in health, is a thing of very recent development. The school has not yet had time to meet the newer demand in an effective way. And preparation to meet this demand will have results not now realized by many teachers. Even the reflex results of being worthy

examples to pupils in matters of health will be a great physical gain. In the one matter of voice alone the benefits will be great. Experts tell us that the vocal cords of the child sympathetically respond to voices and noises long before it is able to articulate. Hence the harsh-voiced teacher who in her efforts to be a worthy example in care of the voice and throat, is likely to reap rich returns in a more satisfactory discipline as her voice trains into a well-modulated tone. Too often the teacher is a bad example in such things as recklessly overworking, in bad hours, and in ruining digestion, eyes, and nerves. If this arises from ignorance the teacher needs to be better informed; if it arises from pure recklessness then there is sad need of a better training. The teacher must practise what she preaches. As public interest in health develops the teacher must be prepared to meet higher standards both in her own health and in her preparation of caring for and instructing in health.

TEMPERANCE AND TOBACCO.—The temptation is always great in health instruction to exaggerate the results of violations of hygienic law, or at least to make statements that are so all-inclusive that pupils are constantly disturbed in accepting and believing them by a mass of apparently contradictory evidence. The temptation to such teaching is especially great in the instruction pertaining to the evil effects of the use of tobacco and alcoholic beverages. The evil results of the excessive use of cigarettes and strong drink have so often been called to our attention that as teachers we are filled with the one moral purpose of making young people abhor the use of tobacco and alcoholic beverages in any form or amount. Such zeal is commendable; but it is well not to lose sight of the fact that misstatements and mistaken methods often leave the pupil in a skeptical or opposition attitude, which thus militates against our entire purpose. Young people do not readily distinguish between excess and moderation, between an occasional violation and habitual violation, between a neutral attitude toward a bodily appetite and being enslaved by it. Nor do they see as older and wiser persons do the danger of creating and feeding an appetite that is full of harmful possibilities. The economic and social effects of carelessness

and indulgence can, however, easily be made clear to them through an abundance of concrete illustrations. Young people can understand that there must be some good reason for forbidding smoking in certain places and for making it a legal offence to sell cigarettes to young people below a certain age. All scientists agree that tobacco should not be used in any form by growing children and youths. There must be good physiological reasons for this and for the fact that insurance companies do not regard excessive users of tobacco as good risks. Besides, the tobacco habit is an expensive one and is offensive to many people. The yellow fingers, yellow teeth, nasty breath, and offensive excretions from the pores of an habitual cigarette user are a bar to promotion and almost invariably to favorable employment. While it is true that tobacco will often soothe excited nerves, such a condition of the nerves should be avoided; and when it does occur what is needed is rest and nourishment, not the deadening of nerve energy by nicotine. The danger in the use of tobacco is its insidiousness. Its use in small quantities, like that of so many other food poisons, does not produce the prompt and unmistakable results which would at once lead to its being shunned. Even in the young person the arrested physical, mental, and moral growth often take some time to reveal themselves. But that both old and young are better off in body, estate, and ability by avoiding its use is a well-known fact.

The testimony against the use of alcoholic drinks is much clearer and far more emphatic. Many business houses will discharge even an otherwise faithful employee who is found intoxicated. Railroads are especially strict in this respect. The reasons for this are clear; experience has shown that the valuable and safe employee is the one who has his faculties and powers under control at all times. Business houses, factories, and large corporations are taking a more and more decided stand against the employment of habitual drinkers. And even the occasional drinker endangers his chances of success. Aside from this, drinking is a wasteful habit and often leads to want; and this want not infrequently falls upon innocent persons whom the drunkard has pledged himself to support. Usually there are also serious and rapid inroads made upon the health of

the person who becomes addicted to the use of drink. Dr. Jacques Bertillon, of Paris, declares, after long and careful study and investigation, his belief that the use of alcohol as a beverage is, if not the chief cause, at least the chief contributory cause of tuberculosis. He also declares that liver diseases, Bright's disease, nervous disorders, insanity, and even cancer, find two or three times as many victims among drinkers as among non-drinkers. Hence there is abundance of evidence, in which there need be no exaggeration of facts, to show young people that the use of drink affects the chances of success, the opportunity for the greatest usefulness, robust health, and our relations to those who may be dependent upon us for help.

But it should also be made clear that a craving for both tobacco and alcohol is fostered by highly seasoned food; by too long hours of work; by lack of exercise, rest, and pure air; and by bad sanitary conditions. Conditions that tend to produce good health and an abundance of bodily vigor, with freedom for their expression in work and recreation, furnish the best means of supplanting these cravings. But the health and vigor needed for marked success are best conserved by leading an abstemious life. That better temperance teaching along many lines is badly needed is shown by the increasing evidence of nervous tension, of the drug habit, of high living, of the growing use of tobacco (even among women), and of the amount of drink consumed. Wm. H. Allen, in his "Civics and Health," says that we must face the truth that this, the most hygienic instructed country in the world, is a perfect Elysium of patent medicine and the cocaine traffic, and that, whereas in 1896 there was consumed 16.49 gallons of spiritous liquor per capita, in 1906 this had increased to 22.27 gallons. Evidently a more effective education along these lines is badly needed.

Overstudy and the Tension of Modern Life.

When the school work is clearly understood and the interest of the pupil is keen, a great amount of studying can be done without physical injury and with as perfect pleasure as can be derived from play. "Interest" has remarkable

physiological power in resisting physical exhaustion and decay. The amount of instruction that can be crowded into an interesting journey and the long-continued but unnoticed physical efforts of a fishing or hunting trip, or an athletic contest, are good illustrations of this. As Mr. Allen says, "Work of itself never killed anybody nor made anybody sick. Work has caused worry, mental strain, and physical break-down only where men while working have been deprived of air, sunlight, exercise, sleep, proper food at the proper time, opportunity to live and work hygienically." We are learning that the overburdening of life is even more apt to arise from poorly ordering, poorly controlling the life than it is from fully occupying the life. And this is true regardless of whether the life is one of work or one of leisure. In other words, bad habits of work and recreation are more responsible for physical break-downs than is the amount of real work accomplished. Too little real work, and too much dissipation of energy are often responsible for the worry that kills. The body was created for work and not merely for play—for real serious effort and accomplishment. The brain was fashioned for thought—for earnest thinking and a purpose. And body and mind are endowed with natural cravings which can be fully satisfied only by purposeful work. Desultory work, procrastination, self-indulgence, even working for self alone, usually breed morbid feelings in the life. The thoughts become trivial, unwholesome, suspicious, self-centred, and the source of great nervous stress and unhappiness. *The Psychological Clinic* some months ago made a vigorous protest against the fashionable schools and private tutors who encourage no serious, purposeful effort in the life, and are thereby largely responsible for many physical, intellectual, and moral weaknesses that result in nervous collapses and life-failures. This is the direct result of the folly and indifference of fathers and the vanity and thoughtless pride of mothers, and deserves the severe condemnation that it usually gets.

However, there are certain things that the school must keep in mind, or overwork in some cases may occur. (1) Neither study nor physical exercise should require effort that is beyond the physical development or physical condi-

tion of the child. There is a physiological age as well as a calendar age that must be considered in a healthful program for any child. The endurance of boys is greater than that of girls, especially after the pubescent period. In both sexes this period is characterized by great physical changes with their resultant stress upon bodily vitality. It is a time when the weak are apt to fall and the strong to forge ahead. Hence it is a time demanding care in regard to those who give evidence of physical weakness, especially where abnormal activity of the emotional nature is apparent. The course of study should be sufficiently elastic to permit wise provision for such individual cases.

(2) Natural fatigue-periods should be taken into account in arranging the program of daily work. There are certain parts of the day when the amount of available energy is greater than at other times—notably from 9 to 10 or 11 in the morning and for a short period after 1 in the afternoon. The more strenuous parts of the daily program should be arranged for these periods, and the less exacting for the periods when the store of available energy is at its lower ebb. It should be remembered that great fatigue, whether of mind or body, is harmful—more harmful to the child than to the adult. Fortunately for young people, it is usually not easy to hold them to serious mental effort as the point of fatigue is approached. The danger is with the abnormally emotional and the abnormally bright. Conditions which lead to over-stimulation with them may readily cause a break-down or be the means of developing the brain at the expense of the body.

(3) The pupil is more apt to be overtaxed by the too great difficulty of the subject and by the number and variety of subjects than by the amount of work in any one subject. Although the latter needs to be carefully guarded, especially when home-work is given, the other two are more apt to develop into the worry that is disastrous. Parents sometimes foolishly insist upon promotion for pupils who are already beyond their depths in comprehension of their work. Teachers need to proceed slowly and carefully enough to see that their pupils understand the work in hand. Parents who unwisely insist upon pushing their children ahead, and teachers who are careless or unsympathetic, can cause serious physical harm to sen-

sitive pupils who are unable to cope with their work. (4) But there is a more common situation that is not easy for the school effectively to meet. This is the condition in the home where late hours, loss of sleep, social stress and dissipation lead to exhaustion and a distinct lowering of the vitality of the nervous organism of the pupil. Equally bad, if not even worse, is the nagging of an overwrought or bad-tempered parent which causes a nervous tension in the child that is extremely unfavorable to economy in the use of its energy. Great tact on the part of the school is necessary when it is discovered that such conditions are endangering the work and welfare of the child. And yet the school is likely to be the first to discover such conditions and certainly the first to feel the weight of the bad influence of the faulty home. Justice to the child and to the school would seem to demand that the home be at least informed when conditions adverse to the welfare of the child are at work, even if they are reported as seemingly occurring within the home.

The Tension of Modern Life.—Many warnings come to us from time to time in regard to the over-strenuous life lived by most people in these days of enticement to efforts that over-tax and over-time and to recreations that over-stimulate. These warnings come in the form of individual physical break-downs, in the evidences of haste and nervous tension seen all around us, and in a general loss of much of the poise which at one time was the boast of the Anglo-Saxon. Although there are such remedial and preventive tendencies at work as shorter hours of labor, an increase of half holidays, and a lengthening of summer vacations, it still remains true that modern life is full of nerve-racking, strenuous conditions. Nor can we take comfort in the shortening of the periods of labor and in the increase of the opportunities for recreation if the leisure and the recreation are merely used as a change of form of the strenuous and over-stimulating activity.

Although modern efficiency is an excellent thing, many nerve-specialists claim that it is producing conditions of life that are too much in the nature of an over-exciting, over-exhausting, and continuous contest. Some of them claim that more care is exercised to avoid driving machinery

beyond its strength than in regard to driving human bodies and human brains beyond the point of safety for the limited nerve-force at their command; that modern business and modern industry are absorbing the vitality of men and doing even greater harm to women; that, through the competition that is so severe and which is aggravated by the increasing knowledge that there is more than one for every job, the apprehension of failure and of dismissal is added to the stress of the engrossing labor; that there is a multiplication of demands outside of the regular occupation that adds greatly to the stress of the regular duties and tends to breed a wearing restlessness and disquiet; that the mistress of the house is coming to have as many pressing engagements as the master; and that social life, which once served as a relief from the stress of business, is beginning to present equally strenuous conditions; and in general that there is a reckless extravagance in matters of health that totally disregards the tax of all these things upon body and brain. As a result, although some years ago such a thing as neurasthenia was practically unknown, to-day in most of our large cities its victims are to be counted by the thousand.

Whether or not these statements are the result of a specialist's tendency to see the world through the diseased portion of it which comes under his notice, it is undoubtedly true that the school should do everything it possibly can toward developing well-nourished, well-controlled nerves, and especially toward cultivating and conserving the temperance and poise that are so valuable in the active duties of life. And never should the school, either through the example of its teachers or through the amount and character of the work required, be guilty of the offences against health so frequently attributed to the business and social life of our day.

The School as a Community Centre for Health Instruction.

We are apt to lose sight of the fact that often there are nearly as many parents in a community who would greatly benefit by health instruction as there are pupils in it. These

parents are usually anxious to know how they may safeguard and promote the health of their children, and, where they are not, there is all the more need to arouse them to their duty in these respects. The school can do more than any other single agency in this respect, both because of the intelligence and influence it represents and because of the persistence with which it can deal with the problem for so many days of the year. Problems of health are so intimately associated with the environment that without proper health conditions in the home, the shop, the store, and in all the surroundings health conditions and health instruction in the school cannot bear their best fruits. We now know that only predispositions to disease can be inherited and that even the child of tubercular parents is safe if all infection is avoided. The trouble is that unless perfectly sanitary conditions prevail in such a home the child can scarcely escape becoming infected with the disease to which it is predisposed. With proper care in all of its environment, an abundance of pure air in the sleeping-room, and a healthy out-door life, it is said to be as safe as any other child. There are latent possibilities for health, even in the child of the most unfavorable ancestry, which care and a well-ordered life seldom fail to develop. And it is well within the privileges of the school to assist in disseminating instruction and hope to parents and the community in which it is placed.

Every one can learn enough about disease and the ways in which it is caused and disseminated to render intelligent assistance in preventive work. Especially can mothers and older daughters be instructed in the ways of caring for babies. And the whole community can learn a great deal about the evils of using patent medicines, the importance of pure foods and a well-guarded milk supply, of the dangers of contaminated drinking water, of the disease-spreading qualities of flies and mosquitoes, and of the importance to the public welfare of well-enforced health laws. Preventable sickness costs too much in lost time and lost efficiency, too dearly in suffering and in the way it interferes with progress, not to make every effort against it. And the only effective way to prevent sickness and promote health is by removing the mystery of disease, by

spreading knowledge of how to produce and maintain health conditions, and by arousing all to the importance of constant and intelligent health activity in the home and in the community.

Where the school opens its doors in the evenings and at other suitable times as a centre of instruction and influence in these directions, it not only gives its pupils a better chance to survive and to grow into healthy men and women, but it also adds enormously to the economic and social progress of the community. Especially should such work help to prevent the great mortality and physical danger of early life. The most hazardous period in American life is infancy. But it is also the period of greatest possibility in things physical. And the school can be a power in spreading the information which helps toward the realization of these possibilities outside of its own doors. The school has also a duty to perform in furnishing the home with the information which will place it in sympathy with the health instruction and training that are given within the school itself. As in morality health teaching in the school will get much of its interpretation and importance from the attitude of the home. There is one general caution, however, in the whole matter, and that is that the school must not attempt things which clearly can be done better by other agencies or elsewhere. Nor should it assume anything pertaining to health that is clearly beyond its province and control as the centre of educational work and influence.

The health of the child is a most excellent medium for bringing the home and the school into more helpful relations to each other. The needs and limitations of the home are not as well known by the school as they should be. Parents are often unaware of the physical needs of their children and more often ignorant of how to meet these needs in the best possible way. Usually the home is only too glad to be informed and is anxious to render all possible assistance in remedying abnormal conditions. If there is either ignorance or indifference on the part of the home as to the welfare of the child, the school is in the best possible position to learn of it and is also in a strong,

strategic position to remedy it. The school nurse and the medical inspector, where such are employed, can usually arouse the home to its duty. And then, too, the school, when it works judiciously, usually has a strong ally in the child. Through its health instruction and training and its sympathetic interest in the individual child, the school usually wins the confidence of parents and with it their desire to care for the health of the child. The nurse can go to the home of the child when it needs treatment, or when for health reasons it is kept away, and can make suggestions as to its proper care. Where there is neglect or open opposition, the medical inspector, working through the board of health, can usually insist upon badly needed treatment or even more sadly needed sanitary measures in the home.

But these sanitary measures may be made to benefit others besides the children who attend school. By opening its doors after sessions and in the evenings, the school can become an important centre of instruction not only for its patrons but for the whole community. In fact, each effective modern public school is rapidly enlisting the interest and affecting the welfare of its entire community. As an illustration of this the good work done in connection with the schools for the saving of babies need but be cited. Statistics show that more than one-fifth of the death-roll is made up of babies under one year of age and that an infant life goes out on an average of every 10 seconds day and night. In most places at present one-third of the children born die before they are five years of age. Physicians claim that fully one-half of these deaths could be avoided. By the "baby-saving shows" and careful instruction of mothers in regard to the nourishment and the care of their babies, New York City has been able to reduce its infant-mortality from 288.9 per 1000 in 1880 to 120 per 1000. But this is still 50 higher than is the case in Huddersfield, England, which as an industrial centre would naturally be expected to have a high death-rate among its infants, owing to the daily employment of so many of its mothers.

The very fact that problems of health in any community connect themselves with the varied interests found in

the home, the street, and the place of business, emphasizes the need for some organized agency like the school to carry on the work of general health instruction. As this work deals with the wider problems of sanitation and general control of health conditions, there must of course be organized expert health supervision under boards of health possessing full legal power to enforce safeguarding demands. But the school can be made an efficient auxiliary in the spread of health information. And working with the board of health, as it usually does through its medical inspectors, it can furnish excellent assistance in developing in the community intelligent and sympathetic support in all matters pertaining to health. In this way the school can make a very direct and valuable return to the community and to the state not only as an educational but as a protective agency. The health of a community is safeguarded and promoted not by its health laws and health opportunities but by the way in which these laws are enforced and these opportunities used. We are slow to learn that intelligence and desire to do are always more effective than the rigors of the law. Judging from the rapid multiplication of laws, we are even slower in learning that effective health training goes deeper and farther than legal measures ever can go.

The cost and danger to society of preventable disease well warrants the additional expense and effort necessary in using the school for this community instruction. Aside from the way in which health affects economic efficiency is the whole problem of the relation of health to social efficiency. Criminality can often be traced to overcrowded and unhygienic surroundings. Even social vice has been proved to be partly a housing problem; for in a number of large German cities it has been greatly lowered by removing the inmates of houses of ill-repute to more attractive and sanitary homes in the suburbs. While other forces have undoubtedly been operative in these cases, it still remains true that a healthy and inspiring environment is more apt to work toward right living than is a filthy and unwholesome environment. And the school can, both by precept and by example, be a large factor in effecting such salutary transformations in the community.

Recreation and Health.

For the small child the paramount need is physical health rather than progress in studies. But good health promotes the acquisition of knowledge, and where proper opportunities for games, plays and interesting physical training are given in connection with the school work, the ability to acquire is also almost invariably promoted. And the growth in knowledge is usually attended by a gratifying growth in social and moral development. So ample provision for recreation and a healthy progress along all desirable lines should be characteristic of every well-equipped and well-conducted modern school. But there is not yet the time and attention devoted to well-organized recreation that its importance demands. Too often the demands for intellectual and vocational training are allowed to crowd out entirely the opportunity for badly needed play and recreation. We have not yet learned as we should that the cells of the body need frequent release from the bonds of concentrated, purposeful effort, to refresh themselves in the freedom of undirected, spontaneous expression. We forget that success can be secured at the expense of health and the saving grace of play.

It is a fallacy to think that the introduction of the manual arts has removed the necessity for recreation and physical training. On this subject Wm. A. Stecher, director of physical education in Philadelphia, has this to say: "Since the introduction of manual training one often hears the argument that pupils having this training need no gymnastics. Now, while it is true that some branches of manual training give to pupils a certain degree of muscular training, it must not be forgotten that this work never was designed nor intended to replace all-round gymnastics. In fact, bodily deformities of students instead of being corrected are in some instances intensified by some forms of manual training. It also is a fact that some forms of this training, at times, are taught under conditions that scarcely can be classed as hygienic." Nor have the after-school play activities of pupils done much to remedy this condition. Where these have been fostered by the school, it has been almost solely for the purpose of getting together and

training school-teams for competition with other school-teams. This leaves the great mass of the pupils, regardless of their needs, to get this health practice as they will. If they must rely on undirected play during the brief intermissions of the school, or upon the precarious conditions for recreation outside of the school, little will be done in the way of harmonious physical development and the refreshing of the body that comes through wholesome play.

Although much has been done within recent years to improve school health conditions, many of these things are largely in the nature of preventive measures. The most sanitary school buildings can only lower the risks accompanying in-door work and the congregating together of large working groups. They of themselves can never remedy the results of physical ignorance or neglect. This is also true of medical inspection, which has no further purpose than the detection and prevention of disease and physical defect. Nor can the health instruction of the class-room do more than furnish the general information in regard to the means of securing and maintaining health, except as it is accompanied by the active measures that tend to remedy defect and to promote vigor and endurance in the body. "The present urgent demand is for a greater number of active measures—measures that help to maintain and increase health by giving the pupils an opportunity to indulge actively in gymnastics and in regulated play." But there must also be opportunity for free play—the "unbossed play" which relieves entirely from the tense and exhausting effort that usually accompanies play that has a purpose. This is the complete physical release which the primitive nature, still within us, craves and demands and which nothing else can so fully satisfy. And nature calls for play that satisfies as well as for play that develops. It should be a fundamental aim of the school to inculcate good health habits in respect to play as well as work and to have these habits firmly intrenched in knowledge and desire. Opportunities for play when well utilized by the school can be made the means of developing many of these habits. Well-organized physical training and ample space and time for play, especially in the open air, are invaluable to the growing child and they are also his inherent right.

(The problem of recreation in all of its bearings is so important that it was made the subject of a special chapter in last year's Annals. See "Current Educational Activities," pp. 23-96.)

Sex Hygiene.

The publicity attending investigations and punishments connected with the "white slave traffic"; the increasing number of anti-vice crusades in large cities; and the consideration given at various medical, religious, and educational conferences to the need and possibilities of sex instruction have given the whole problem of sex hygiene unusual prominence within the last few years. Changes in the attitude toward motherhood and toward home duties and responsibilities and a marked increase in the number of divorces have given additional emphasis to the subject. Then, too, the possibilities of such a mating of the sexes as will tend to produce a stronger and more worthy offspring has also received attention in the so-called science of eugenics. Realizing the importance of avoiding the entrance into the young life of wrong thoughts and practices, many are emphasizing the need of early instruction on the subject of sex. According to their thought, ignorance, misinformation, and a lack of proper instruction are responsible for immorality more often than is any moral turpitude on the part of the offender. Secret vice, sex diseases, and all the evils arising from wrong thoughts and desires toward the opposite sex would undoubtedly be placed under valuable restraining influences were the proper knowledge and safeguards thrown around young people at the right time and in the proper manner. But there is still great difference of opinion as to what constitutes the best safeguards; whether definite instruction in sex matters should be given and, if so, by whom and how; and as to how early conscious restraining influences should be used.

Many maintain that with good health, a proper environment, and wholesome work and recreation sex thoughts and feelings are not apt to arise, especially before the period of puberty. To give definite sex instruction before this period would therefore merely be suggestive of the

very things which normally should be and would be kept out of the life. There is also a distinct repugnance to such instruction, even after puberty, that has grown up in society because of the ban it has placed upon the open discussion of matters pertaining to reproduction, excepting as they are treated as a necessary part of the course in schools of medicine. Whether or not the morality and health of the race have suffered as a result of this secrecy, it must still be remembered that social sentiments which are the products of the centuries are not lightly to be disregarded. And it should also be remembered that, as a result of these sentiments, few have made the study of the problem which would enable them to become competent instructors of the young in matters pertaining to the sexes. Even physicians have been trained only in the pathology of the sex relations and know very little indeed concerning the practical psychology, pedagogy, or hygiene of sex. While such men as Doctor G. Stanley Hall believe that sex instruction should be given by parents, especially by mothers to daughters, they recognize that only a very few mothers are competent to do so, and that in most cases sex-shame makes it hard for fathers to speak out plainly to their adolescent sons. If therefore instruction is to be given, the burden of it should fall upon those who must first be thoroughly prepared for the work, whether these persons be physicians, teachers, or parents.

And in this preparation for sex instruction it should be remembered that sex hygiene deals with a two-fold problem—sex health has a mental side as well as a physical. As Doctor Hall says, if either the mind or the body is “sluggish, idle, unoccupied, sex is so imperious that it tends to push to the front and possess both, and may easily come to dominate interest, especially through the adolescent decade.” No amount of knowledge, however fit, adequate, and timely, is then sufficient to guarantee that sex desire will not break down prudence, shame, honor, and decency and defy conscience and religion. Hence, whether we instruct in sex hygiene or not, we must add to all instruction of the young absorbing occupation. “For the body, active, healthful, daily exercise to the point of normal fatigue, and for the mind interests of every worthy sort,

intellectual, social, æsthetic, vocational, religious. Every healthful zest and activity makes directly for sexual hygiene." But to this, if we instruct in the subject at all, must be added an active cultivation of specific sentiments and ideals on the subject, with the purpose of developing honorable feelings toward the opposite sex as well as a desire for worthy descendants. The respect due mothers and sisters and the mothers and sisters of other boys should be impressed upon all boys, young and old. Girls should clearly understand that "the attention of no young man is really worthy or permanent which cannot be held by means that do not compromise self-respect." And both boys and girls should be led to understand the supreme value of taking proper care of their bodies, so that when marriage occurs the sacred germ of life may be transmitted untainted to future generations.

The best approach for sex teaching is through plant and animal life. This may be so correlated with other information that children are not at first conscious that they are getting sex knowledge. And at no time should sex instruction be given in a way that makes either pupil or instructor feel that an unnatural or forbidden subject is under consideration. Whatever sex instruction is given, either at home or at school, should be clear and frank and should always deal with the normal side of the subject. Instruction that deals with immorality is not only objectionable but is of less effect than instruction in sex health and sex temperance. There is serious objection to young people being admitted to sex hygiene exhibits, because of the probability of their seeing things which, because they do not clearly understand them, will be suggestive and harmful. The advisability of presenting the pathological aspects of sex hygiene even to older people is questioned by many, especially if such presentation is unaccompanied by authoritative talks and explanations. We now know that no one is deterred from wrong doing by the possibilities of dreadful punishment through disease. Would-be offenders are always deterred more by the certainty of punishment than by its severity; and individuals are always quite willing to assume the risks of escape especially when their worst passions are aroused. All discussions of the

immoral side of sex problems should be left for individual instruction and influence rather than to public discussions and displays.

Some incline to the view that the church as well as the school should take the lead in sex instruction. Jane Addams takes this view when in speaking of the social evil she says, "If it is made clear that youth is ensnared because of its ignorance of the most fundamental facts of life, then it is the duty of the church to promote public instruction for girls and lads, which shall dignify sex knowledge and free it from all indecency." The Vice Commission of Chicago, in its recently published report, places the responsibility for sex instruction upon the churches, the schools, and the parents of that city. In its recommendation to the schools it says, "We recommend that the Board of Education appoint a committee to investigate thoroughly the advisability and methods of teaching social hygiene to the older pupils in the public schools." To parents it says, "Great emphasis should be placed on parental responsibility and upon the effects of church and school in informing parents how to safeguard their children in sex life and relationship." Such work on the part of parents is probably, after all, the most important part of any instruction or help in the matter that can be given. The real basis of all effective sex teaching is the kind of influence which reaches the individual. Differences in physical condition, in physical development, in environmental influences, and in temperament will always make this true in sex hygiene just as it is in morals. The basis of successful work in both of these lines is companionship and confidence. Without these, little will be accomplished beyond the mere furnishing of information. And experience has amply proved this to be no effective safeguard.

Doctor Graftsman of Munich has very clearly summed up the essentials of sex teaching in a paper which he read before an educational commission in that city in May, 1912. His statements were in substance as follows: 1. There is need of such instruction owing to the spread of venereal disease and to the injurious effects of an increasing abuse of the sexual functions. The great increase of population, especially in crowded centres, our growing commerce and

intercourse with other lands, the growth of wealth, and in the United States the great yearly influx of foreign people with their lower standards of morality, make it necessary that educators take practical account of this need. 2. The backbone of the training must always be the cultivation of will-power—the development of character. Too much reliance must not be placed upon knowledge, and the instruction given must be of an intellectual and not sentimental nature, and adapted as much as possible to the individual temperament. More energy must be thrown into the efforts to develop right thoughts and character in respect to sex relations. Respect for the opposite sex must be cultivated. The consciousness of the duty toward society of preserving one's health and power must be realized. Sexual preoccupation of the mind must be antagonized on the principle of "displacement," the readiest means for the purpose being bodily exercise and physical culture. 3. Sexual instruction should in the main be imparted by the family, especially the instruction most directly applicable to the particular case. This family work needs to be organized and the parents instructed by lectures, etc., given by physicians and duly qualified teachers. 4. A radical remedy of the evil cannot be effected without careful supervision of youth and their environment. All corrupt elements should be banished from the school community without regard to persons, although without public expulsion or any special thought of punishment. 5. Pupils of secondary grade should be suitably warned against sexual dangers by means of lectures, attendance at which is not obligatory. At Halle these lectures are first held before the parents and then given to the students.

EUGENICS.—Society is interested in sex instruction not merely for the sake of preventing disease and immorality, but also that the children born into the world may initially be better animals, and that by the time they themselves become parents they shall be better fitted to meet the demands of an upward evolution in human affairs. The call made by Herbert Spencer so many years ago for training for parenthood is at last beginning to receive attention in almost every civilized country. And the school shall have to face the fact that it has done entirely too little

toward educating for home life and practically nothing in the way of training the homing instincts, or in guiding and guarding youth from the mistakes that wreck homes and seriously threaten the general welfare of society. Although in the matter of mating love will probably always be too subtle for analysis and too determined to brook control, there are many things essential to satisfactory home making which our youth should know before the school yields up its control over them. The frequent unhappiness and failures of married life emphasize the need of helpful enlightenment on this subject. And the rapid growth of divorce especially emphasizes the need. America, this enlightened nation which leads the world in so many things, is also with one exception, Japan, beginning to lead the world in the number of divorces granted each year. As one writer has said: "Leaving out statutory causes as grounds for divorce, the bulk of the rest can be summed up in these words: The wife refuses to be the home-maker." This same writer, Margaret Woodward, writing for *Suburban Life*, says: "We American women are either society women, club women, church women, or business women. It is somewhat rarely that you can find one who can be distinctly labelled as a home woman. That genus is rapidly disappearing from the States, and is being replaced by the 'progressive' woman. Now a woman cannot belong to the various clubs, guilds, leagues, circles, and lodges, either secular or religious, without neglecting her home duties, presupposing that she is a wife and mother." As parents, teachers, and preachers of right living, what are we going to do about it? Is it my duty as a teacher, yours as a preacher or a parent, or the duty of all of us, to fulfill a part in remedying these conditions, especially with our young people?

Health and Efficiency.

It has been estimated that the loss in the United States from preventable disease is annually at least two billions of dollars. From tuberculosis alone it has been placed at \$330,000,000. Some one has estimated that there is on the average a loss of 13 days each year from sickness for every man, woman, and child old enough to attend school. And

none of these estimates takes account of the loss occurring through the lowering of the working capacity during attacks of headache, toothache, indigestion, and other so-called minor ailments. The economic loss falling upon whole communities in the past during serious epidemics is beyond computation. There seems to be abundant evidence that many parts of the South have been seriously hindered for years in their social as well as their economic progress by the easily cured and easily preventable hookworm disease. Manifestly, large sums could be spent annually for better sanitation, for the spread of information concerning disease and how to prevent it, and for the better care of those now unable to meet the conditions of getting well, and all to the economic gain of the community and the state. And none of this takes into account the possible prevention of sorrow and suffering due to disease—the immeasurable things of the spirit that produce misery, breed despair, and darken the entire horizon of life.

But there is a positive side to the whole question that is even more important. While it is true that some strong characters have been able to rise above their physical weakness and in spite of their infirmities to become marvels of genius and productive power, it still remains true that the great bulk of mankind reach their highest efficiency only during periods of robust health. Therefore, whatever promotes vigorous health in a community or nation tends to promote efficiency. The inhabitants of mountainous regions are proverbially independent, self-reliant, and brave. Much of this is due no doubt to pure air, pure water, ease of sanitation, and the healthful, invigorating exercise usually associated with such regions. Courage, energetic initiative, and the persistence and endurance that win out in life's contests have never been so characteristic of the inhabitants of disease-breeding lowlands. This is true, at least, until proper sanitary measures have raised the lowland to a high degree of health condition. The persistence which is so necessary for a large measure of success demands physical vigor, a high degree of endurance, and rapid recuperative power. And all these are measured by the state of health. The larger and more hopeful visions which inspire to a fuller life can come only from a joyous feeling of healthful vigor.

Gloom and despair find little foothold where there is perfect health. Hope and the desire for effort and accomplishment are the more natural fruits of vigorous health.

LONGEVITY.—There is one phase of the subject of efficiency in its relation to health that appears to have received far too little practical consideration. This is the possibility of prolonging the period of life. If statistics properly state the facts, there has been an average of 12 years added to human life during the last half century. Since the first actual records were made in New York City in the middle of the sixties, the death-rate there has been reduced from 35 to 16 per 1000. But these gratifying results have been brought about largely through the control of infectious and contagious diseases. And most of the saving has been in the period of life under 50. Comparatively little has been accomplished toward saving against the organic diseases and failure of power of advancing years, especially for those who are active in affairs and who are taxed with large responsibilities. To such an extent is this true that Doctor William Osler, formerly of Baltimore, has suggested in a facetious way that the age of 60 limits the real productive power of an individual and that after that age he had better be chloroformed. Although there are notable exceptions to the failure of ability after the age of 60, it still remains too sadly true that few now pass that goal in the vigor of health that will assure many years of additional usefulness. Whether length and vigor of life are to be promoted by more careful conservation of health in the earlier years, or by a régime of release from arduous and responsible labor at the age of 60 or 65, it still remains true that there would be a tremendous gain by setting forward the period when failing physical powers begin their inroads upon efficiency. The extension of the period of maximum efficiency for even a few years would often mark the difference between failure and success and would result in an enormous social and economic gain. Breadth of experience and maturity of judgment can never become the full possession of the younger men. Their initiative and vigor of approach to the problems of life are splendid things, but, if these could be carried over by better knowledge and practice of the laws of health into the period of wide experience and

greater accuracy of judgment, their value as factors in success would be greatly enhanced. Whatever, therefore, will put farther away in the life of each individual the period of a loosening grasp on health and vigor of body will be a great gain. Antidotes for "the microbe of old age" should be better known and more generally used.

The Mind and Health.

There are many ailments that originate in fear, are aggravated by the imagination, and fastened upon the individual by his own morbid introspection. It is well known that fear can actually affect the circulation of the blood to an extent that interferes with the proper nourishment of the nerves and thereby produces bodily disorders which in turn aggravate the fear. This is the doleful round of serious results to which morbid fear of imaginary evils always reduces those who will yield to its sway. These are "the ingrowing thoughts" which show the need of *mental hygiene* for the mind even more than physical hygiene is needed for the body. The value of suggestion, especially self-suggestion (auto-suggestion), in the cure of disease has long been known to physicians and all their efforts to arouse confidence of recovery in the patient are for the purpose of securing the help of this important mental influence. Few things are accomplishing more for health than the removal of so much of the mystery concerning disease and its cure. This is in accordance with the well-known psychological law that harmful things which are not understood are apt to be dreaded far beyond their power to do harm, and to be regarded with a more or less helpless dread. Even extremely dangerous disease can be fought more successfully and hopefully when its cause, methods of attack, and possible prevention and cure are known.

But the mind untrained in matters of mental health is apt to dwell unduly upon the real or possible ailments of the body, even when disease is well understood. This is why it is inadvisable to dwell much upon disease in instructing the young. The morbid introspection that is apt to develop in sensitive natures may work disastrous results. One of the worst features of such morbid thoughts is its influence upon

the character. Doctor Elwood Worcester says of the nervous affections to which such morbid thoughts usually lead: "The curse of neurasthenia and allied nervous weaknesses is their egotistic and anti-social character. The neurasthenic is afraid of his own shadow, worries himself to death over trifles, magnifies real troubles out of all proportion to their intrinsic significance, is self-centred, looks at everything from the point of view of its bearing upon his petty fortunes." In all these troubles there is a gradual degeneration of self-control which affects the altruistic and social feelings and to this extent the character of the person involved. Unreasonable dislikes, undue self-esteem, and an abnormal sensitiveness of self are apt to develop and color every decision and act that infringes upon the self-erected standards and views. "The curse of neuroticism is its egotism." This is why a morbidly nervous teacher or an overwrought mother is so apt to be totally unfit to deal with young people. If we would exert a wholesome influence upon others, especially upon children, we ourselves must have only healthy thoughts and a hopeful attitude toward life.

Some of the important things that influence the mental attitude and therefore the health of the pupil are:

1. *Environment*.—A sunny, neatly decorated school-room, with suitable pictures on the walls, growing plants in the windows, and a happy, buoyant teacher in charge, will breed wholesome, health-giving thoughts, even though never a word is spoken on the subject of health. But a harsh or irritable teacher or parent will make the most admirable surroundings and health teachings of little avail. Business men know that a grouchy foreman or manager will almost inevitably foster ill health among their more sensitive employees. And a grouchy teacher or parent is all the worse because of the more sensitive natures that must live in the unwholesome mental atmosphere which they create.

2. *Suggestion*.—Children are far more open to suggestion than adults. In all matters pertaining to their own health or the health of others suggestion plays an important part. Observation has shown that children are apt to contract such nervous disorders as chorea, hysteria, undue excitability, and even epilepsy, from seeing others in these conditions. Wherever children are congregated this im-

portant fact needs to be kept in mind. There is a psychic contagion which spreads even more rapidly than physical contagion. Fortunately, proper conditions can use the psychic contagion as well as the improper conditions can, and all who have to deal with the young can minimize the influence of the unwholesome and, by due care, suggest only the more healthful things of life. Health instruction for the young should dwell almost entirely upon lines that suggest health and a hopeful outlook upon life. Even the courage of the child should be fostered for this reason. The teacher or parent who in any way suggests to a child that it lacks ability, or is hopelessly bad, may not only repel it from further efforts to improve but also start it on the way toward morbid views that will darken its entire life.

3. *Self-control*.—Any system of education that is worth while is founded on the idea of developing self-control. No amount of instruction, whether it be in matters of practice or in matters of knowledge, is worth while unless it is under the leash of self-restraint. There is a deplorable tendency, under certain conditions of American life, to slacken up on desirable restraints and to permit the following of inclinations for the sake of "freedom." No health teaching can bear its best results where this kind of freedom prevails. But there is an even more serious threatening of our health as a people. This is the high pressure at which we are working and involving ourselves in a burdensome multitude of duties and pleasures. Biologists warn us that such high-pressure work will inevitably result in a race of high-strung, nervous people who will lack the poise and self-control so necessary to effective living. And there are already entirely too many individual instances of the lack of these qualities, without which the maximum amount of work cannot be accomplished with the minimum amount of effort and friction, and with the steadiness of judgment and reliability of temperament that go so far toward permanency of success. Parents, but especially teachers, need poise and self-control as a foundation for the confidence they must inspire in the young before they can accomplish much in the way of building up these essential things in the life of the child. No one can control others who is not himself or herself self-controlled. No one can build up self-control in others who is

not well poised in his or her methods of approach and influence.

4. *Work*.—One of the best agencies for securing healthful mental habits is work. Recreation liberally interspersed with the work is also necessary. But recreation alone can never fully satisfy the natural instincts which demand the accomplishment of something useful. Without work—serious, solid work—the life soon becomes empty and the mind diseased. Work is a condition of mental health. It is useful employment which builds up strength and endurance, as well as joy in living, in our entire mental and physical existence. In fact, the work-cure, especially where it takes the patient out of doors and into touch with nature, has been found to be most effective in the forms of mental disorder which arise from too much leisure, bad habits of work, or the hallucinations that develop from having too much opportunity to think of self. Work usually draws us outside of ourselves and frees us from the danger of morbid introspection. A boy or girl who is not taught to perform useful work and to look forward to a life of active usefulness will inevitably feel the lash of violated mental hygiene. The mind of youth is active. And when this activity is not directed into channels of usefulness it flows into the ways suggested by caprice, by the passions, by the temperament, or by any other mentally dangerous agency.

5. *But work must not be centred upon self*. It must be for the purpose of accomplishing that which is beyond, higher, and better than self. It must be for service—service to others rather than for self. One of the most unwholesome mental attitudes that can arise is that of feeling that one is of no use in the world. Such feelings may arise temporarily as a result of disappointment or failure and be only fleeting in their influence. But, where it becomes a habit of thought, the feeling becomes a serious menace to the mental health. For this reason young people need much consideration and encouragement in their failures. All of them need the bracing, invigorating feeling of at least occasional success. No task should be so far beyond the efforts of the child that he cannot succeed. It is therefore manifestly unwise, and a serious menace to the attitude toward work, to push a developing child beyond his understanding or

strength. Both mental age and physiological age must be taken into account in arranging the course of study, the daily program, the daily responsibilities and tasks. But with all of these, and in all of these, the child should be led into the ways of service. Usually the child is pleased with the dignity of being permitted to serve—of demonstrating his ability to do things that are useful. Usually he is so pleased with responsibility that from these first stages of service for those he loves or in whom he has confidence he can be led out into the wholesome, safeguarding, developing influences of social and civil service. And when this end is accomplished, another physically, mentally, and morally healthy citizen has been developed for the State.

Doctor of Public Health.

The work that boards of health and medical inspectors have been called upon to do in the schools has called attention to the need of a wider training, on the part of the physicians who undertake such work, than that which is necessary in the ordinary medical practice. Two things occurring within recent years have greatly emphasized the need for this broader training. One was the discovery of the fact that the mosquito is largely responsible for epidemics of yellow fever and the resulting improvement made in the sanitary conditions in Cuba. The other was the work of sanitation so effectively done and maintained by Colonel Gorgas and his medical staff in the Canal Zone. This work made possible the digging of the Panama Canal, and has transformed a region, which for centuries was regarded as one of the plague spots of the earth, into a place with a death-rate lower than is to be found in many of the large cities of more northern climes. The work of Doctor Oscar Dowling in fighting filth and disease in the State of Louisiana has also called attention to this same need of a new type of health expert.

The training for this new profession should be based upon a thorough medical education and should include, in addition to this training, careful preparation in public hygiene, sanitation, food and water testing and analysis, and advanced skill in bacteriology. The preparation in public

hygiene should include a knowledge of the best methods of securing the results and habits that make for health. And the sanitary training should impart a good engineering knowledge of the problems of heating, ventilation, and drainage. For the work of successful medical inspection in the schools, these doctors of public health might also well have a knowledge of criminology, mental pathology and hygiene that would prove of great service in the recognition and treatment of mental and moral defectives. Because of the high degree of training required, competent persons for this broader health work should be paid attractive salaries and should be employed continuously. Only in this way can the school, the community, or the State hope to receive the full benefit of their work as their experience in it grows and they thus become more valuable in the service.

In the Canal Zone the work of the sanitary experts included getting rid of malaria and yellow fever and the difficult task of furnishing uncontaminated water and food supplies, as well as proper incentives to secure more healthful habits of living. These tasks demanded expert knowledge and executive ability far beyond that possessed or ordinarily demanded of the physician. The yellow fever mosquitoes, fortunately, do not fly far, and the sanitary measures pertained to such things as segregating patients, screening hospitals and houses to prevent their access to patients, and to the covering or removal of all their possible breeding places. In the case of malaria, however, the problem involved far more. The germs of this disease are also carried by a mosquito; but it is of comparatively strong flight, and becomes a menace to regions probably even as far as a mile and a half from its breeding place. To get rid of its dangers, therefore, involved not only screening the houses, but the filling in of water holes and marshes and, in some cases, the creation of new and better channels for streams. During the eight years that the work has been going on, the engineers and the physicians have spent over \$12,000,000. But they have made it possible for the Caucasian to remain healthy and vigorous in this torrid climate, and to accomplish the most stupendous engineering feat ever attempted without unnecessarily sacrificing either lives or health. The extent of the safety from yellow fever is shown by the fact

that during the year 1911 there was not a single case of yellow fever within the entire Canal Zone.

Doctor Dowling's work in Louisiana illustrates the more usual forms which public health work must assume and for which the doctor of public health must prepare. Soon after becoming president of the Board of Health of his State, he saw the necessity of carrying his health message and his personal inspection out among the people. To do so he had equipped a health exhibit train by means of which he visited every town of 250 inhabitants or over in the entire State. Through this "gospel of health on wheels" he was able to convince the people of the need of proper sanitation; of the necessity of protecting food supplies from dust, flies, and other insects; of the value of clean, rich milk, produced by healthy, well-fed, well-bred cattle; of the importance of exercising care in the slaughtering and handling of meats; of the danger of drinking contaminated water; of the disease germs lurking in the drinking-cup used by everybody and in the public roller towel; that dirty houses and streets and bad drainage are the fertile means of breeding and communicating disease; and that the drug habit arising from the use of patent medicines is often as dangerous as disease itself. During his tour practically every school-house, jail, asylum, and other public building was visited and inspected, as were also most of the stores, restaurants, barber-shops, and hotels. While the inspection was going on in a town, Doctor Dowling's assistants lectured to the people on health conditions, with a view not only of imparting knowledge but also of reforming the habits of individuals in the hope of making of each one of them an enthusiastic agent and inspector for public health. As it always is difficult to arouse adults to a saving sense of conditions to which they have become accustomed, Doctor Dowling soon realized the importance of carrying his health work into the schools of the State. By bringing about proper instruction in matters of health in the schools, the Louisiana Board of Health expects that the coming generation will be trained in better ways of living and in a proper interest in the general public health. For, in the interest and intelligence in such matters which can be awakened and maintained among young people, lies, no doubt, the greatest hope for the health of the future.

Experts in social statistics have placed an economic valuation upon human life at every period from infancy to old age. This valuation increases steadily from \$90 for the newborn infant to \$4100 for the matured adult, and then declines slowly as the expectation of life decreases with advancing years. Taking Professor Irving Fisher's estimate of \$2900 as representing the average value of the lives of Americans, we find the vital assets of our nation to be approximately \$300,000,000,000, or nearly $2\frac{1}{2}$ times the value of its other wealth. This helps to emphasize the importance of conserving the health of the nation as its most valuable asset. Doctor Earl Mayo, in an article in *The Outlook* for December 7, estimates the number of deaths in the United States each year as 1,500,000, and says that it is not this tremendous total which is the big fact, but rather that "It is the undeniable truth that a very large proportion of them are preventable,—that is, postponable for longer or shorter periods." Even if a knowledge of the preventive measures that are already known could be spread and acted upon, in his judgment 40 per cent, or 600,000 lives, could be spared each year. This represents, without considering at all the incomputable suffering and sorrow accompanying it, an economic waste that calls for prompt remedy. And in applying the necessary remedies there would also be a distinct gain in general health. "The methods required for the prevention of unnecessary deaths would at the same time do away with much preventable illness. The conclusion of the most widely recognized authority on the relative extent of sickness and mortality is that for each death there is a little more than two years of invalidity." While most of the invalidity is among the very young and the very old, there is still at least one-third of it among persons in the productive periods of life. Averaging earning capacity at \$1.50 per day or \$450 per year, the loss from sickness each year of probably a million persons involved represents a loss of about \$450,000,000 per year. "The cost of medical care, medicines, and nursing average at least a dollar a day additional, or a yearly total (for approximately 3,000,000 persons who represent the average number sick) of over \$1,000,000,000." Altogether Doctor Mayo feels that the elimination of preventable sickness would add at least \$1,500,000,000 to our

national resources each year. Hence, from the economic stand-point alone the elimination of all possible sickness and disease stands out as one of our greatest problems and makes the expenditure of all funds that can be properly used for the purpose entirely justifiable. And, without minimizing in the least the value of the physician, whose aim it is to alleviate our suffering and to cure us when we get sick, the more important thing is to get rid of disease and the things which cause it and to promote the vigor of mind and body that wards it off, that increases efficiency, and that defers the period of failing powers. To this end should tend the work of the school, the efforts of the physician, the training of the doctor of public health, and the combined support and activity of all who are anxious to promote human efficiency and human happiness.

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PART II

CHAPTER II

DEVELOPMENTS DIRECTLY AFFECTING THE SCHOOLS.

Vocational Education.

VOCATIONAL TRAINING AND CULTURE.—Doctor David Snedden, State Commissioner of Education for Massachusetts, has made, in the April issue of the *Educational Review*, a valuable contribution to the literature on the subject of the relation of vocational training to culture, or, as he puts it, the influence and place of The Practical Arts in Liberal Education. As Doctor Snedden has had wide experience in the administration of both vocational and liberal education, what he has to say deserves the most careful consideration.

Although conclusions in regard to matters pertaining to vocational training have not yet reached the point of assurance, the past 23 years have furnished us a great body of experience which should assist in our constructive thinking and at least enable us to draw conclusions of a negative nature. And by limiting his inquiries to the definite period between the ages of 12 and 14, or the last two grades of the elementary school, Doctor Snedden hopes, by raising certain questions, to assist in making clear what should or should not be the practice in connection with vocational education. This term, it should be remembered, Doctor Snedden uses to include all the manual activities which are used for the concrete and objective ends which are most clearly related to the occupations of mankind. He uses the term *practical arts* as a more comprehensive expression which will readily include all such branches, studies, or exercises as manual training, manual arts, cooking, sewing, agriculture, printing, etc., and it is these practical arts that he has in mind in considering the relation of vocational training to the

more abstract and intellectually approached parts of the elementary school program. He presents a contrast between these two things by asking the following questions:

1. Are not the practical arts, as factors in the program of studies for the upper grades, suffering from a confusion of partially contradictory terms? In other words, to Doctor Snedden's mind vocational education has for its purpose to make of a person an efficient producer; liberal education, an effective consumer or user. Therefore, any liberal training resulting from vocational activities could only be incidental and merely in the direction of a broad social use of the vocational training. And the course of study best adapted to a liberal education may develop little vocational power. Hence, these two forms of training have little in common, although in the teaching of the practical arts to-day we are striving to follow the two paths simultaneously. If this is true, then he asks—

2. Is it worth while to introduce the vocational aim in practical arts studies which are to form only a minor part of the program of general or liberal education? There is insufficient time in any good elementary program to realize genuine vocational power; hence, what is done in that direction is only sham and make-believe. Vocational ideals and capacity for vocational choice may come from such work; but it will accomplish little for direct vocational training. "Vocational education must be more serious, more effortful, closer to the realities of practical life in respect to the hours, discipline, surroundings, and strivings of productive labor" than can be expected in the elementary program. The question is then asked—

3. Is it worth while in the practical arts branches to try to defend the kind of aims and methods that have been discarded in other departments of education? For example, in the minds of writers on manual training still persist such ideas as "logical" courses, "type" studies, the "artistic" and "workmanship." While the failure to recognize the genetic order in the development of the powers of the child is not restricted to such writers and teachers, it is peculiarly disastrous in the studies and exercises from which we have a right to expect so much in the way of socialized experience, a higher appreciation of the shop and the farm,

and permanent interest in the finer things of life. The child is insatiable in his desire for constructive activity and for familiarizing himself with the concrete world, and his natural efforts will gradually evolve from purposeless activities, which serve for physical growth through ministering consciously to the play instinct, into those which foreshadow purposeful efforts toward utility. Is it not wiser then to have, as our chief purpose in the practical arts education, merely an enriched and varied experience along the lines suggested by youthful instincts and an environment sympathetically adapted to the child's stage of development? If such a course should be decided upon, then Doctor Snedden naturally questions the efforts at correlation by asking—

4. Is it profitable to permit practical arts subjects to be deflected from their important purposes by considerations of correlation? This inquiry is less pertinent in its relation to upper-grade work than lower, but all over-insistence on correlation, in Doctor Snedden's judgment, is confusing to the pupil. This, of course, does not preclude the idea that we may yet find large strands or units of common effort underlying both the practical arts and the purely intellectual studies. But there must be no artificial attempts at correlation; and the drawing, mathematics, language, etc., that have their application to practical arts teaching, must be correlated only in the natural way in which each contributes incidentally to the other.

5. Cannot a wide range of units or projects be selected from the principal fields of industry and each and all be adapted to the active interests and stages of development of these pupils? The various fields in which creative activity is applied to materials, and from which self-development and the consciousness of mastery of nature are secured by men and women, should yield selected units adapted to the powers of youth and calculated to call forth their ambitious efforts. Furthermore, a large number of these activities operate in the fields of personal need and social relation and, therefore, lend themselves to an interpretation of economic and social life. Hence, in these respects they may be made to contribute to a genuinely liberal education, especially with reference to broad social usefulness.

“Suppose that the boy of twelve or fourteen choose his

projects from the following: the growing of selected vegetables or other plants; the making of pieces of playground apparatus or articles of furniture for the home; the varnishing of a school desk; the cleaning and repairing of a bicycle, faucet, lock, or sewing-machine; the sharpening of a collection of cutlery used at home; the half-soling of a pair of shoes; the construction of some steps of concrete; the binding of some sets of magazines; the mounting of photographs or framing of pictures; the preparing of articles of food used in camp; the printing of a pamphlet; and the executing of hundreds of other undertakings which educational ingenuity can discover. If, within the capacity of the school and the directive power of the teacher, he makes choices, and carries his projects to a successful outcome; if, in doing so, he reads, designs, compares, and is led to comprehend such scientific and artistic principles as are not too deeply involved in his work, will he not have obtained a substantial addition to liberal education? Is it of fundamental importance that he shall have completed all the steps in some abstract series of exercises? Suppose he has not reached the degree of thoroughness, precision, artistic or scientific appreciation commonly exacted by craftsman's standards, can we not apply here the same tests of childish growth and unfoldment that we avail ourselves of in other departments of the program of studies?"

6. In the seventh and eighth grades, must not these practical arts be taught by a departmental or special teacher? This, Doctor Snedden regards as the only practicable way. He also feels that such teachers should be "handy" men, resourceful, ingenious, and sympathetic with childish crudities, rather than journeymen with skill in only a few lines of work. "It is improbable that any woman can carry out the program described for boys; and, equally, only a woman should give the work for girls. The importance of holding to the amateur's standards and spirit rather than those of the journeyman must be insisted on."

In closing, Doctor Snedden refers to the analogy existing between the teaching of these practical arts and the teaching of other subjects of the elementary curriculum, and says that, in the early stages of all these subjects, "modern pedagogy insists on the utilization of units touch-

ing dominant interests, and not remote from the spontaneous learning powers of children." The place for drill, systematic approach, and the approximation of journeyman's standards is in the vocational school and not in these elementary grades.

AN EXTREME VIEW.—H. E. Miles, chairman of the Committee on Industrial Education of the National Association of Manufacturers, recently expressed a desire which is in the minds of many who are interested in education from the industrial side alone. He declared that the ordinary trade schools are not sufficient for the needs of the people, and that boys and girls should be provided training in the trades they intend to pursue in the ordinary elementary school. In every public school-house he would make provision for teaching carpentry, bricklaying, painting, and every other ordinary trade. The instruction in the elementary academic subjects he would have bear directly upon the pupil's industrial efficiency, and would follow such subjects only to the extent to which they would add to this proficiency in production.

It is with these and similar ideas in mind that charges are often made against existing school instruction as based on "excessive regard for tradition" and "as being blinded with the worship of time-worn educational ideals." It is also from the viewpoint of adult business or industrial efficiency that many of the statements about "inability to write good business letters," "poor spelling" and worse accounting, and "a lack of thoroughness" arise. No one questions the importance of thoroughness nor of the kind of training that is essential to success in life. But it is a grave question whether there is not danger of our becoming so imbued with the idea of industrial efficiency that we forget that there are other exceedingly important things which go to the forming of the truly efficient citizen. Industrial efficiency is a very desirable thing, both for the individual and the State, because it means self-support and economic gain; but neither the individual nor the State find their greatest happiness or truest success in these things. Health, recreations, morality, human brotherhood, how leisure hours are employed, and the worthiness of the ideals that are developed and fostered are all more important questions than these. And whether

they shall receive due consideration side by side with this demand for industrial training, or as a basis for all of it, becomes a very vital question. That they may not safely be set aside is clear; just as it is also evident that our educational thought and practice are being rapidly reshaped by the changing conditions of society, and very largely by this new thought of training for direct and practical results. This change is now well under way, and, although it may not come as rapidly or as fully as some industrial leaders may desire, it will probably come all the more safely and sanely because it will come in the way in which society usually evolves its bigger and more important movements.

“PRACTICAL TRAINING” VERSUS SCIENTIFIC.—Mr. Andrew Carnegie has spoken a most valuable word, as a practical man of wide experience, on the value of scientific training for industrial leadership. “The trained mechanic of the past,” he says, “who has hitherto carried off most of the honors in our industrial work, is now to meet a rival in the scientifically educated youth, who will push him hard—very hard indeed. Three of the largest steel manufacturing concerns in the world are already under the management of three educated men. Walker of the Illinois Steel Company, Schwab of the Edgar Thompson Works, and Potter of the Homestead Steel Works are types of the new product. Not one of them yet thirty. Most of the chiefs of the departments under them are of the same class. Such educated young men have one important advantage over the apprenticed mechanic,—they are open-minded and without prejudice. The scientific attitude of the mind, that of the searcher after truth, renders them receptive of new ideas. Great and invaluable as the working mechanic has been, and is, and always will be, yet he is disposed to adopt narrow views of affairs, for he is generally well up in years before he comes into power. It is different with the scientifically trained boy, he has no prejudices, and goes in for the latest invention or newest method, no matter if another has discovered it. He adopts the plan that will beat the record, and discards his own devices or ideas, which the working-mechanic-superintendent can rarely be induced to do.”

Is there not a word of wisdom here also for those who

are or would be leaders in educational affairs and who should be scientifically trained, and, even when dominated by a wise conservatism, keep an open mind and a readiness to adopt that which is better?

INDUSTRIAL EDUCATION IN GERMANY.—The Bureau of Education at Washington pronounces the recent report of the Wisconsin Commission for the Extension of Industrial and Agricultural Training as one of the best of the briefer descriptions of industrial schools in Germany. The marked advance of Germany along industrial lines in recent years is generally conceded to be due to the number and excellence of its industrial schools and to the manifest interest of the people in their success. One of the unforeseen results of the common interest of employers and employees in these schools is the better understanding between labor and capital that is developing, and the strengthening of the bond of sympathy between the two that is thereby being fostered. The possibility of labor strikes, which always mean a serious financial loss to both sides of the controversy as well as less capital in the country with which to carry on industry and purchase the comforts of life, will become more remote under such conditions. Increased industrial efficiency that is obtained through the mutual interest of both the agents of production, is, after all, the best solution of the labor problem.

A brief review of the report of the Wisconsin Commission follows: Statistics reveal the fact that the Germans are going into the markets of the world and underselling us and that, even in the United States, their sales have increased 100 per cent since 1900. However, the Commission would not have us copy German methods, because the mental characteristics and temperamental difference between the two nations render this inadvisable. What appears to the German as superficial in our education is sometimes the basis for the quickness of comprehension, the intuitive insight and readiness that could not to advantage be replaced by the tremendous care and ponderous exactitude of many of the German methods.

The specific causes of Germany's educational successes in industry seem to be due: *first*, to the heavy investment made in industrial schools. Nearly every village has one

such school, while often even in small cities there are several. Although the equipment of these schools is usually surprisingly simple, in some cases it is very complete and costly. The immense investment in industrial schools in the little province of Württemberg is especially emphasized. It is a poor, hilly country, with poor transportation facilities and a population considerably less than that of Wisconsin. And yet, besides its splendid system of elementary and secondary schools, it has nearly 250 industrial schools in its towns and villages, a knitting school, 3 weaving schools and 2 industrial workshops for actual practice in weaving, 2 technical schools for textile and mechanical work, a large State university, a technical university, a royal building-trade school, a great commercial college and several commercial improvement schools, a large agricultural school and many farming schools similar to our county agricultural schools, an art trade school, a pure art school, and many such miscellaneous schools as evening schools, continuation schools, schools in domestic economy for women, and other schools for workmen of various grades.

The practical nature of the work is a *second* point to notice. Almost without exception there is a correlation between the industrial conditions of the place and the schools established within it. Hence each place is apt to meet its problems differently, and the schools are a striking reflex of the industrial conditions pertaining in their respective communities. This enables these schools to meet the wants of the great mass of people, although it makes standardization of work and economical combination of effort more difficult. But at present the Germans care less for those things than they do for the desire of the workman for improvement and for his instruction at the bench or at the machine. Their emphasis is being placed upon *the average man* of the industry, for they have realized that the success of an enterprise depends in the long run upon the men in the ranks. Although liberal provision is made for the higher institutions and they are meeting with great success, yet it is to the miscellaneous continuation schools that Germany owes in great measure her success. Every boy between the ages of 14 and 18 who is not attending any other school is obliged to attend these continuation schools for practically

a day each week. In some places he attends from 4 to 6 in the afternoon; in others, 2 mornings each week; in still others, and this way is the most common, he may go to school for 1 day each week. If the boy is employed in an industry, the continuation school he attends is an industrial one; for the Germans have found this to be the most satisfactory way in which to supply the loss of the old apprenticeship system. In these schools there is an effort made to give the youth a broad view of the other departments of the industry in which he is employed. For example, if he is an apprentice or beginner with a jewelry firm and is 14 years of age, he goes to school say on Friday or Saturday, and in the school he may have 1 hour of German, 1 hour of free-hand drawing, 1 hour of plastic design, 1 hour of commercial geography, and, in addition, any other work that will give him a broad view of the methods of manufacturing jewelry and of placing it upon the market.

A *third* point to notice in the German industrial schools is the method of administering them. After severe trial and a number of years, the Germans have concluded that there is an inevitable tendency in all industrial schools to become too theoretical and to turn out students who are theorists rather than practical men, unless their management can be kept under the dominating influence of men of affairs. Hence they have established, almost everywhere, local committees of business men, manufacturers, and workmen, who watch closely the work of these schools and who, because of their vital relation to them, take the utmost pride and interest in them. Although, as with us, the heads of these industrial schools complain because they cannot have the boys for all the school days, experience has demonstrated that, if these schools are put on a full-time basis, the boy who works in the factory and earns his living is gradually crowded out, and the schools rapidly become training places for engineers, professional men, and men of culture only. Hence, Germany has determined, without neglecting the higher institutions, to lay stress upon increasing the efficiency of the everyday workman.

Another specific element of success is in the teaching. Every means is employed to get the right kind of teachers. They are paid higher wages than for similar grades in the

other schools; special inducements are held out to secure good workmen for such positions, some of them being really artists in their calling; they are furnished with private rooms in the schools in which to carry on their researches and improvements; and recently special training schools for such teachers have been established. These training schools are for both men and women. The "task system" is employed in the teaching. Instead of being arranged by subjects, the work (course of study) is arranged in a series of well-graded "tasks." Small classes of from 16 to 20 prevail, and the tasks are assigned to suit each individual member of the class. All who are alike prepared begin at the same task. If a boy has but one day a week in which to perform his task, he comes in and begins where he left off, regardless of what the rest are doing. When he has finished that task he goes on to the next. In his room may be others who are attending every day in order fully to learn the trade. They, of course, get along more rapidly, but they are all under the same teacher. In the whole course it is a question of individual ability and the number of tasks completed, rather than a question of the amount of time devoted to the work, which determines the standing in the course. This "task" system, in the judgment of the Commission, adds greatly to the simplicity and economy of such industrial schools.

THE SCHOOL OF THE FUTURE.—In a recent address delivered to Swiss teachers at Zurich, Doctor Kerschensteiner of Munich, who has done so much for the development of vocational education, ventured the prediction that the school of the future is to be a school of manual work. This prediction he based on the theory that all true education is based on stimulating self-activity that is built upon well-directed active observation. A translation of this address is to be found in *School and Home Education* for March.

A century ago, he said, Pestalozzi, in his efforts to discover the laws to which the human mind is subjected by its own nature, concluded that the absolute foundation of all knowledge is in the recognition of observation. Since then we have learned that this observation must be active, as the methods of mere passive observation fail to develop

the mental life of the child. While the school must always have as its function the purpose to help children to increase their knowledge and to organize and complete their knowledge aright, it must be a "learning school," adapted not only to the child's receptivity but also to its productivity. And too many schools that profess a strong purpose of calling forth the self-activity and of developing the character of their pupils do not differ essentially from the schools where nothing is sought for but mere passive observation. This is because they allow the productive activities of their pupils to die out instead of developing them; because they fail to remember that "children learn not only through words and books, but still more through practical experience. They often try to mould powers, especially intellectual powers, at a time when they are unsusceptible of moulding; they connect learning with things for which interest has to be awakened artificially by ingenious means, while they only rarely use fully, for purposes of instruction, the round of experience which the child brings to school with it; so far as methodical instruction is concerned, they give the social nature of the child hardly any food at all." This he maintains serves to perpetuate schools which Doctor Dewey of Chicago says are intended only for "listening."

"Recognizing this, many of us feel that the existing school stands in need of a great change in its work. Consciousness of the necessity of the reform of the learning-school is found not only in Europe, which is said to be growing old and where the school has to develop under the pressure of traditions centuries old, but it is also advocated by the best educators of the New World." The years of childhood till puberty is reached are, as a rule, characterized by great activity. "In those years it is of the essence of the child to work, to move, to do things, to see what things are made of, to take part in all kinds of life, so as to learn uninterruptedly by the help of realities. The whole unresting life of play of the child is an arrangement directly intended by nature to ensure that its mental and physical powers shall grow under the influence of living experiences of all kinds. Healthy children, especially when they are not cooped up within the grave-walls of large

towns, are all initiative. They are constantly discovering new spheres for their activity; and they get so immersed in them that they forget all the rest of the world. Ninety per cent of all boys and girls, in spite of our book-education, far prefer every kind of practical activity to quiet abstract thinking and reflection. They are always ready to work in workshop and kitchen, in garden and field, in the stable and fishing boat. Here is their most fruitful field of knowledge." It is also their natural field of knowledge; and the absence of the things with which they have been familiar, when they enter the school, makes it seem a new, strange world to them with incomprehensible demands and aims. "Is it any wonder that the little ones are frightened at first and lose their heads, if they turn into themselves instead of going out of themselves, if their thoughts escape out of the four walls of the school-room in spite of all good-will, all reproofs and punishments?" Doctor Kerschesteiner admits, however, that, as a rule, a sympathetic teacher smooths the way for an easy transition from the home to the school; and, here in America, where the teaching of beginners is especially good, there can be little objection to the methods pursued, whatever might be the conclusion in regard to the subjects presented.

He also admits that pupils may grow fond of the new kind of knowledge and quite accustomed to the methods of pursuing it. But his great objection is that, instead of living with real things, they are learning to associate with the shadows of real things, and are building up passive book-knowledge ideas instead of the active experiences of observation, investigation, discovery, and the bold adventures of self-initiative. He also recognizes the fact that children can get certain fundamental moral qualities in the learning-school which cannot be dispensed with in worthy living. These are such qualities as accuracy, conscientiousness, carefulness, endurance, orderliness, regularity, and self-control. But these can be gotten also in the manual work school and without the danger of stunting the active characteristics, the courage of self-assertion and enterprise, the stimulation of struggling with the new and unaccustomed, the pleasure of observing and testing, and the humanizing influence of working for others as well as for

self. He believes that the school of to-day can be so reshaped as not to lose any of its good qualities and yet so as to use and develop the active part of the child's mind which is now so apt to be allowed to die of inanition. "If that is to be possible, it can only come about through addressing ourselves, from the beginning of instruction, more than we have hitherto done, to the child's creative powers, as far as possible in the same sphere of activity with which it is connected before and during its school life by its personal inclinations and aptitudes and by its economic environment. *Our learning-school must become a work-school connected with the play-school of earliest childhood.*" The fundamental principle that must guide in applying these ideas is founded on the fact that "the little scholar would rather work from out of himself than to let work from outside be put into him."

"Productive activity" he interprets as: Grasping the meaning of what is read and reproducing it in a way that shows it has been understood and with proper feeling and action; making clear to others the results of the child's own experience; the ability to follow in arithmetical calculations what it has seen in space and time and observed in school workshop or in the economics of every-day life. But he says this is chiefly the mental side of productive activity, and is not always closely enough connected with the result of the child's life; nor does it have the larger social significance which comes from doing things with due regard to their value to others. Therefore, "What the new work-school needs is, in addition to the field of purely mental work, a rich tract of manual work. For here lies, for the great majority of human beings, the most fruitful field of development. What it needs further are kinds of work which shall, if possible, be in some way connected with the bread-winning or home work of the parents, so that the threads spun by the school shall not be broken every day when the child takes its satchel from its shoulders. Thirdly, what the work-school needs is work done by each child for the good of its school-fellows, work which from the first day onward shall again and again preach the lesson: '*The meaning of life is not in ruling but in serving.*'"

There should also be in this new school much work done in common; for it is in this way that the feeling of subordination to common aims and methods, which is the very basis of all civic and social life, can best be cultivated. We need such schools not merely for the sake of the training they give, nor for the sake of discovering what the pupil can do best, but to cultivate love of work, fellowship with others, and gratitude to the State.

PRACTICAL TESTS OF VOCATIONAL EDUCATION.—According to an editorial in *Education* for January, the school work already accomplished by the American Government in the Philippines, and other countries secured from Spain, has afforded an excellent opportunity to demonstrate the correctness of some educational theories which would not so readily yield to certain demonstrations in the midst of the more complex and varied influences of our older civilization. This, in the judgment of the editor, is particularly true in regard to industrial education. "The supreme value of industrial education," he says, "from a cultural as well as a purely practical point of view, is seen in the rapid development of the highest and best human qualities and sentiments in these hitherto crude peoples. The ability to do something well—something that is worth while, something that benefits the doer and his fellows—gives a new sense of personal worth, a new self-respect, and draws quickly into its train such virtues as industry, frugality, honesty, considerateness of others, and a whole round of moral qualities. The dignity of the school system of the United States, and of the profession of teaching, has been immeasurably exalted by the achievements of the pioneers in these new fields."

FEDERAL AID.—Senator Carroll S. Page, of Vermont, early in the year introduced a bill providing that the Federal Government shall appropriate annually the sum of \$12,000,000, to be divided among the States and Territories in certain fixed proportions, for the encouragement in secondary schools and agricultural colleges of the teaching of agriculture, the trades and industries, and home economics. While the amount seems large, it is, as Senator Page points out, less than the cost of a single battleship. The Secretary of the Interior and the Secretary of Agriculture and the

Secretary of Commerce and Labor are charged with the administration of the proposed law; and it is arranged that any school making use of such funds must make an annual accounting to the Secretary of the Interior through the Governor of the State so concerned. Many will wonder, now that the Federal Government is likely to take a paternal interest in educational affairs, why the Bureau of Education at Washington cannot be raised into the dignity of a separate department and all matters pertaining to Federal education be placed under its expert supervision.

Vocational Guidance.

A great deal of practical work was done during the past year in some of the larger cities in the way of assisting young people in the choice of an occupation. Most of this, however, was done by organizations that worked practically independent of the schools. Few schools of the country are doing the work along these lines which they should in order to be effectively helpful to the young people when they leave their doors. There is still too much blind choice in the matter. Although organizations of kindly disposed people can do a great deal, it is practically impossible for them to reach a great number of cases that really demand serious consideration. In some respects the investigations and publications of these organizations form the most important part of their work. The influence of these is rapidly spreading over the country and rendering the important service of making known actual conditions and needs. Out of this knowledge is rapidly developing a general demand for a better safeguarding of the interests of youth and the economic welfare of the country. It is not only discouraging to the individual initiative of the beginning wage-earner but is also ominous to the economic welfare of any community to permit a large percentage of its young people to drift into "blind-alley" occupations. The welfare of the nation is built upon the hopes and ambitions of its young people. And upon the school, and what the people are willing to authorize the school to do, depend the training and guidance which will enable them to realize upon these hopes and ambitions.

The situation in regard to choosing an occupation and earning a livelihood is particularly acute for girls between 14 and 16 who have left school. The Girls Trade Education League of Boston has made a careful survey of occupations and conditions for such girls in Boston and has published a pamphlet containing the conclusions reached. The author of the pamphlet, Harriet Hazen Dodge, states that many establishments will not employ girls under 18 because they are "too immature," "thoughtless," "childish," "undersized and slow to grasp details," "careless," "frivolous," and "irresponsible." One employer said he would not engage such girls because "the firm is looking for dividends and it cannot afford the economic waste." In the minds of many employers "two years' more maturity is a decided asset." Some firms, however, will take girls under 18 because of the lower wage for which they can secure them; and others will take them whenever there is a lack of supply of experienced and mature workers. In Boston the greatest number of 14 to 16 year old girls find employment in the candy factory, the department store, and the shoe factory. The last two hold opportunity for advancement to a higher wage; but opportunity is wholly lacking in many of the occupations open to such girls. Where the opportunity does exist, the girl's advancement depends largely upon perseverance and capability noticeably above the average, as well as upon the existence of a vacancy above and her tactful aggressiveness in securing it. "Dropped into the monotonous, unskilled, though manually active tasks of the factory, or the more attractive but continuously low-paid tasks of the department store, the average young girl worker lacks the control, the perseverance, the far-sightedness, and patience to stick to and perform her present task with an eye to a position beyond. One of two things therefore often happens,—she shifts from one place to another looking vainly for something more satisfactory, or her sensitiveness gives way to dull resignation and her small flames of initiative and ambition easily die out."

Not only is there a strong tendency to warp the young girl's mentality and to kill her ambition in the occupations

open to her, but frequently there is also danger of her health becoming impaired. Her work usually requires constant sitting or standing and takes her away from her customary life, with at least some out-of-door experience and some measure of play in it, and confines her in-doors for 8 or 9 hours per day and under work-room conditions which, "in matters of ventilation, spacing, and light, are directly opposed to her physical welfare." The whole matter, therefore, presents an imperative problem for the educator and the social worker. "The wage-earning world affords the untrained fourteen to sixteen year old girl meagre opportunities, and it necessarily places a low valuation on her earning capacity. Because of the unskilled work which it gives her to perform, it has an influence upon her efficiency as a future worker and upon her future work as a human being, which is nearly always a destructive one. Added to this stands the now well-established fact that the majority of girls do not leave school early for work because of financial conditions of the home. Instead, they leave because other girls are leaving, because they are 'too big for their class,' because they don't get on well in their studies, or because they are 'tired of school and would rather go to work.'" The urgency of the matter receives additional emphasis from the fact that practically the same situation confronts boys of similar age who leave school to go to work.

The most profitable lines of investigation on which to base instruction and guidance in the choice of a vocation seem to be: 1. Securing information by competent and direct inquiry and investigation at industrial and business establishments. 2. Securing information concerning the various occupations, their nature and scope. 3. Determining the qualities and training necessary for success in each occupation selected. 4. Listing the various kinds of position, the pay, and the opportunities in each. 5. Inquiring into the risks attendant upon the occupation and how best to meet them. 6. Securing information from Census Reports concerning each occupation. 7. Preparing a bibliography of helpful publications bearing upon each. 8. Listing the institutions giving special training for each.

Recreation.

The interest in proper recreations continues to develop. This is especially true of the playground movements and of finding the best solution for satisfying the natural desires for amusement of young people who have entered upon the serious task of earning a living. The problem of providing recreations for them which will be clean, helpful, and restorative, and at the same time attractive, is in many respects one of the most important economic and social problems of the day. That a number of cities have become intensely interested in the problem is a hopeful sign. That much remains to be done is evident to every one who knows the conditions confronting every young man, and especially every young woman, who spends long and severely taxing working hours in the store, office, or shop, and has no helpful conditions in the boarding-house or the home awaiting the return from daily labor.

Aside from the more general and better provision of playgrounds and the extension of the use of school buildings as community centres for recreation, the main recreational developments of the year clustered about: (1) The growth of the outing-camp idea; (2) the increasing interest in tramps into the country, through the forests, and along the streams; and (3) the development of the forest-school idea. Unfortunately, the first of these is still too largely only for the children of people of means. The summer camp idea has not yet reached the stage where those who need it most can, through some means of productive effort while in camp or through provisions made for them by others, avail themselves of its benefits. This fortunately is not true of tramping for pleasure; and the various *wanderlust* clubs that have sprung up in a number of our cities are proof of the rapidly developing interest in this attractive and profitable pleasure.

The forest-school idea is comparatively new in America. However, the summer months in our colder regions, and the whole year through where the climate will permit, will no doubt eventually induce an increasingly large number of parents to place their children in these

schools with their sessions and lessons held in the recesses of the health-giving woods.

One of the most interesting of the recreational developments of the last few years has been *the introduction and growing appeal of folk-dances, folk-music, and folklore*. This reversion to more primitive customs and interests possesses an unusually strong appeal for most people. A recent writer in a London publication ("Physical Education"), calls it a "folk-streak" and says: "Folk-lore assails the fancy, erstwhile songs are in each mouth, old-time dances fire the blood with crude compulsion. The fascinations of the long-ago world, with its rustic arts, its sweet etiquette, and its fiercer pleasures, wake the ancestral echoes of the heart." Although he questions the advisability of encouraging the movement because of its appeal to primitive passions, he admits that the "folk-streak" is "Rich in scenes of quaintness, vigor, and measured lilt." This being true, its appeal is naturally strong, and it seems to furnish a valuable means for leading into better things. The writer utters one caution, however, which it is well to observe. Morris-dancing requires an exceptionally alert and vigorous frame of mind and therefore fatigue follows rapidly in its wake. Therefore all such movements must not be long continued and they must be well interspersed with periods of rest.

PLAY AS A PREPARATION FOR LIFE.—President Joseph Lee, of the Playground and Recreation Association of America, says some very pertinent things concerning the importance of play in its relation to the preparation of each individual for his fullest capacity in life. "What we must realize," he said, "is that boys—the live boys who grow up to be live men—need danger and difficulty as much as they need food, and it is as much our duty to supply it to them. How fully does our civilization satisfy this longing on the part of the boy? Often the boy's body atrophies, and, worse, his soul atrophies, because he has no activities that legitimately call forth his budding powers. In order that we may have more play, more real recreation, we must arrange our work so that it can be done in shorter hours.

"Every individual is wound up for some certain career

in life in which he would be successful. If he does not have opportunity to give expression to his bent, he is to a certain extent a failure; he does not live in the highest sense of the word. All mankind also are headed toward certain general ends, and depend for life and growth upon serving them. The boy is a safety-match. You cannot strike him on any old surface. If he is to serve his purpose he must come in touch with the surface adapted to him. It is conscience and not cussedness that makes the boy fight. He has his ideals, which to him are instructive. In defending himself, in attempting to work out his ideals, which to us seem crude and semi-barbarous, he manifests a high degree of courage. It lies with us to say what form this boyish courage shall take. We may think this courage ought to be sublimated into a form of moral courage. But in this we forget that habits and instincts develop naturally at certain stages of life. The hen-following habit of the young chick comes at a certain age. If the chick is of the incubator type and the hen is not present at the critical age, the habit is never formed—for it will not form later.

"The boy period of life is the time for the expression of physical courage. If this quality does not express itself then, the boy will lack something in his nature later in life. Exercising this physical courage at the heroic age he will be in a better condition to develop true moral courage later. We sometimes think it would be much better if boys were more docile and fitted better into the scheme of civilization, but, if it were possible to have one generation of boys fitting nicely into the ways of the previous generation, we should be fearfully disappointed in them. One thing we need to develop in our boys is more of the play spirit, giving them games in which all will take a part, and not a mere picked few, with the rest sitting on the benches yelling for their favorites.

"The disease of civilization is that we have sacrificed the end—life—for the means. We need to enjoy life instead of always getting ready to live. What is the remedy for the disease of civilization? It is certainly not to return to barbarism, nor is it war, nor hunting and fishing. We need to introduce the trade school, teaching the boy what will be useful to him; we need to observe the element of

competition and team play in all his work; we need to realize the value of play as a means of self-expression and self-development."—*Hygiene and the Child*.

PLAY AND THE INTELLECT.—In an interesting article published in the *American Journal of Anatomy* for November 15, Doctor E. L. Mellus, of Baltimore, emphasizes the idea that all mental development has a physical basis. The play instincts, which present such a strong appeal to both mental and physical activity, are particularly full of possibilities for brain development, or, as Doctor Mellus says, for the development of the cerebral cortex and therefore of the strength of intellect that is dependent upon brain development. In a comparative study of the cellular structure of the so-called "Broca's area," Doctor Mellus found a very appreciable difference in the thickness of the cortical layers in favor of the left hemisphere. While it is exceedingly difficult, "although by no means impossible," to count the number of cells in a given cortical area, "it appears that the deeper cortex has the greater number of cells." It is only natural to suppose that such increase in depth would be due either to increase in the volume of the cells, or to a greater separation of the cells due to the development of their outgrowing or ingrowing processes, or both together. From a careful and prolonged study of the motor area in the human cortex, Doctor Mellus is convinced that there are great variations in the development of the so-called Betz cells and that this development is fundamental to or accompanies intellectual development.

The intimate relation between physical exercise and the development of the "motor areas" of the brain has been known for many years. As early as 1892 Ladd wrote, "Corresponding to the better motor education of the right arm is the fact that its motor region in the left hemisphere is more extended" (see his "Physiological Psychology," p. 279). That he also believed in the connection between the brain substance and intellect is shown by the following: "Extensive losses of cerebral substance in the motor region result in the loss of those tactile sensations and muscular sensations by means of which the animal localizes and interprets the meaning of objects, and adapts the finer movements of its limbs accordingly. They also impair the power

to express the volition of the animal by motor impulses started, in accordance with the sensations and images of motion, in the appropriate area of the brain. Moreover, such loss of the powers of sensation, sense-perception, and skilful motion, necessarily implies more or less of loss of intelligence." (Ladd, p. 275.)

There are two tracts of the spinal cord that have been traced into definite parts of the brain. Most of the fibres of one of these, the pyramidal tract, cross over in the medulla at the extreme upper part of the cord. "But some of the fibres from the pyramids of the medulla do not cross in the upper part of the cord. These form the *uncrossed* (or anterior) *part* of the pyramidal tract" (Ladd, p. 72). The two halves of the cord are connected by commissural fibres and serve the double purpose of conducting nerve commotion and of acting as a series of reflex and automatic centres, which are especially strong at the enlargements where nerves branch off into the upper and lower limbs. "Kaiser found that the number of developed neurons in the cervical enlargement in man more than doubled from birth to the fifteenth year and twice as many in the right hand as in the left." (See Appleton's "Comparative Study of Play Activities.") The cord has groups of nerve elements like those of the brain proper, and its ganglion-cells are extremely complex and are all connected with the general mechanism of this central organ. As a result it is not easy to say just where intelligence begins in our complex highly organized nervous system, although it is usually associated with the brain alone. Hughlings Jackson speaks of the spinal cord and the lower part of the brain as the "lower level" of the nervous system—the reflex level. The second level of development he calls the "sensori-motor" brain and says it comprises about one-third of the cortex. The "upper level" comprises the remainder and has apparently more to do with the inhibiting and coördinating capacity of the brain. The various parts of the cortex are connected by a multitude of fibres known as tangential fibres.

All the finer motor and sensory developments of the nervous system find their chief period of growth between the ages of 7 and 12. The investigations of Flechsig and

others show that the period of 12 corresponds in brain development to the development in the cortex of the tangential fibres. These fibres are exceedingly fine and occur in three main layers. They seem in some way to be permanently connected with the parts of the brain that are neither sensory nor motor and are usually known as the association fibres. Flechsig is of the opinion that the areas of the brain in which they have their origin are association areas, and that all the higher capacities of an individual are closely related to the development of these association areas.

PHYSICAL EDUCATION AND PLEASURE.—A London publication (*"Health"*) quotes some of the statements of Prof. K. Moeller, made in a recent address, concerning the importance of associating pleasure with physical education. "We live in an age of hyper-culture," he said. "There is no lack of instructions as to how we should live properly, but we are far from living according to Nature's ways. In our efforts we must not overlook that most important element, pleasure. For the pleasure derived from them we take up such exercises as bicycling, swimming, etc. Only when combined with pleasure are physical exercises performed with vigor. In a great many places physical training is made one of the ingredients of the school curriculum and is thereby robbed of the glamour with which the natural instinct for physical exercise is surrounded. Whenever possible such training should be undertaken in the open air, and the arrangement of lessons should be such as to favor the development of the general vitality (especially of the lungs and the heart) in preference to the building up of a powerful muscular system. Running games and contests must have a prominent place in physical training, since they seem to meet these requirements more fully than does a monotonous, strictly scientific gymnastic lesson."

The main trouble in such gymnastic lessons seems to be, as pointed out by Dr. D. M. F. Krogh, in *Mind and Body* for October, that teachers try to impress pupils with a lot of insignificant details which are of little practical value, and thus tire them out and cause them to lose interest in the broad benefits and pleasures that may be asso-

ciated even with the harder parts of the gymnastic work. "If we are unable to interest the pupil, our cause is lost. We have but one way to create interest, and that is by combining actual pleasure with the hardship of the work."

"HOME-MADE" TOYS AND APPLIANCES.—There is a growing tendency to make use of the play instincts of the child in developing its constructive ability. This tendency is shown in the increasing number of articles on home-made toys and appliances in the Boys and Girls Departments of popular periodicals and in the growing interest taken in the subject by kindergartners and primary teachers. The insistence of the constructive instinct of the child to express itself in making things has long been known; but, with the fuller recognition within the last few years of the value of play, has come a new and, it is to be hoped, a more fruitful interest in the matter. Parents often wonder why a child will desert its skilfully made and brilliantly painted mechanical toys to play in the sand or to build houses and railroads out of blocks and scraps from the carpenter shop. Interested for a little while in the costly toy because of its novelty, it soon neglects it, or destroys it in an effort to solve the source of its movements, and takes a far more intense and lasting interest in the crude waste pieces of lumber or in the readily handled sand. And even where these are not at hand and there is a wealth of variety in the bought toys, the lack of genuinely fruitful interest is shown by the haste with which the child goes from one toy to another. The fickleness of the interest of the child who possesses a number of toys is due not only to the fact that the toy is apt to offer the minimum of appeal to its constructive instinct, but also to the fact that it leaves nothing to the child's imagination. The tendency of the child to clothe the old rag doll and the things built up from the crude ends of lumber with all sorts of marvellous qualities and powers is a natural instinct clamoring to be fed. And the child's lack of appreciation of the expensive toy is not an ingratitude, but only the expression of dominating instincts, which it can no more control than it can the insistence of the hunger instinct. In fact the constructive and imaginative instincts

are also hungers. And meeting such normal hungers in a normal way solves the most important problems of education.

In a very practical article in *McCall's Magazine* for July, Grace L. Brown, of Columbia University, emphasizes the value of giving the child access to a room where it is free to "make things" and to an abundance of material for the exercise of its imaginative and constructive instincts. Besides satisfying these instinct-hungers, children take a personal pride in their own handiwork. Although crude, it is their own work. If the first kite made will not fly or the doll's house is too small, they realize that they can try again. And when they do succeed they have the joy and the profit of having accomplished something. And this feeds the purposefulness and determination which are so essential in later life. "Children of all ages have loved this sort of work, and those of to-day are no exception. Give them materials, a few simple tools, and a little sympathetic guidance, and they will surprise you with the number of playthings they are capable of making." Such discarded things as heavy wrapping paper, cardboard boxes, spools, string, small wooden boxes—all of them are transmuted by the little child into what are for it wonderful dolls and doll-houses, articles of clothing, wagons and other implements, things that go and things that can be made to appear to go. But the tools with which the child works should be good tools and adapted to its size. It is unreasonable to expect the child to be able to do anything at all with the cheap toy tools so often given it and with which even grown-ups with their greater strength and skill could do nothing.

An important phase of these appeals to the play instinct is the valuable instruction that can so easily be combined with them. A knowledge of colors, of the nature and source of materials, and of the geometric forms of the articles constructed; ability to measure, to plan, to draw, to test; and the development of desirable traits of patience and self-control, of persistence and resourcefulness, of helpfulness and generosity—all these things find a normal opportunity in this great field of self-expression.

PHYSICAL EXERCISE AND DISEASE.—Dr. H. M. Fried-

man, in the July issue of the *Journal of Outdoor Life*, says that "Physical exercise is of value in the prevention of tuberculosis,—first, because it accelerates the blood current, bringing increased nutrition to the whole body; secondly, because it increases the general health and vigor and this presents a greater fighting force against our common enemy, disease; and, lastly, because exercise develops the body and tends to eradicate the physical defects which accompany poor physiques and which predispose to the development of tuberculosis."

The same journal, however, contains a caution in regard to the kind and amount of exercise that is beneficial to persons with weak lungs. "Exercise which in health would help to build up the normal body and to increase resistance to disease might, in this illness (tuberculosis), when injudiciously carried out, lead to much harm, weakening the resisting powers and hastening the progress of the disease. When judiciously regulated, however, after the acute manifestations have passed, exercise may be of inestimable benefit in helping the body to regain once more its normal functions and capacity for work." It should be needless to state that such exercise must be in the pure air of out-of-doors. The more hours any one of us spends out of doors, breathing the fresh air and drinking in through every pore the sunshine of heaven, the better defence we are building up against the encroachments of disease and the more fully we are adding to our capacity to work and to derive greater benefit and joy from life.

A moderate degree of fatigue in connection with bodily activity is not detrimental, but care must be taken not to allow it to become excessive when the body is diseased. "The healthy body is provided with great recuperative powers, and does not readily succumb to even excessive demands on its energy. But it should be allowed the proper condition for recuperation, and that condition is adequate rest. There is danger when the fatigue of one day's labor is not eliminated before the next day's work is begun. The effects may then be cumulative, the tissues may then be in a continued state of depression, and the end may be disastrous. In a body depleted by disease there is all the more reason for avoiding excessive fatigue. Espe-

cially is this true of one suffering from tuberculosis, for the very conditions of fatigue are already there present, the excessive consumption of body tissue and the accumulation of poisonous substances. The poisonous substances that exist in a tuberculous body are derived from two sources: part of them come from the destruction of the body's tissues; and part are products of the activities of the tubercle bacillus. These latter are no less fatiguing to the tissues than are the normal fatigue substances."

FATIGUE.—In her book on the effects of overwork, Miss Josephine Goldmark calls attention to the well-known fact that a feeling of fatigue is nature's warning that waste products are being produced in the body more rapidly than they can be eliminated. As these uneliminated waste products are dangerous to the system, it is entirely correct to say that a fatigued person is in this sense a poisoned person—poisoned by the toxins of fatigue. The cells of the body of a living person are constantly seizing upon nutritive elements in food and air, and casting off the outworn, dead matter that arises from the cell changes which constitute what we call life. When a person is at work these changes occur more rapidly than while he is at rest, both the breaking down and upbuilding of the cells being accelerated by exercise. As the breaking down soon goes on faster than the upbuilding, the person begins to tire and activity must be balanced by rest. If, however, the work or exercise is still continued, the waste products from the broken-down cells, which ordinarily are carried off as rapidly as formed, begin to accumulate and to overburden the eliminating processes. We say the metabolic balance of the body has been disturbed. But just as truly we could say the body has become poisoned by its own uneliminated waste products—by chemical poisoning due to the unexpelled toxins of fatigue.

What is needed is due respect for rest and recreation in connection with all our activities. And, as Miss Goldmark says, "The essential thing in rest is the time at which it comes. Rest postponed is rest more than proportionately deprived of virtue. Fatigue let run is a debt to be paid at compound interest. Maggiori showed that, after a doubled task, muscle requires not double but four times as long a

rest for recuperation; and a similar need for more than proportionately increased rest after excessive work is true also of our other tissues and of our organism in its totality."

Although Miss Goldmark's book has for its purpose the proving of the fact that long hours, and being overdriven, must result in injury to the body, especially of women and children in industrial employments, it serves equally well as a warning to every one against the dangers of neglecting needed rest and recreation. The body is patient and will often stand a great deal of abuse, but deterioration and an inferior product will inevitably follow, continued long hours and over-speeding. And, in the case of children, normal growth and development can be secured only by observing proper periods and adequate time for sleep and play, and by a careful refraining from over-taxing and over-tiring their bodies which need so much strength and vigor for the mere act of growing.

TRUE AIM OF ATHLETICS.—What should be the true aim of athletics was set forth in a resolution of the Athletic Research Society at a meeting held in New York, in December, 1911. This society, which has been in existence for some six or seven years, is endeavoring to find a means of stamping out the evils of professionalism in amateur sports. In this endeavor it is coöperating with committees from colleges, Y. M. C. A.'s, and athletic clubs. In this new resolution it set forth the aims of the society in the following statement:

"We believe the aim in all athletics should be to build rational and wholesome play sentiments, habits, and traditions among the youth of the land; to establish educational leadership and to develop a public opinion to support the efficient and inspiring organization of athletics as play in contrast with athletics organized primarily as a spectacle; and in those administrative policies in the practical conduct of athletics that will develop and conserve this aim."

Col. E. R. Stewart, of West Point, in a recent address emphasized the same point when he said: "Therefore, as far as it appears from a purely army stand-point, the attitude which we should encourage upon the part of colleges is that of encouraging not a development of a small number

of men who are exceedingly proficient in a given sport, but to encourage, in any way this body (the National Collegiate Athletic Association) legitimately can, a general participation in athletic events which will tend to elevate the general physical standard of *all* of its student bodies."

LEFT-HANDEDNESS.—Instructors are often at a loss to know what to do with left-handed pupils. So many of the implements of civilization are made for right-handed people only, and the influence upon us of the usual is so strong, that we are always tempted to compel every child to use the right hand. This often leads to an effort at concealment of left-handedness on the part of the child, and it is not until the movements of free play reveal it that the instructor becomes aware of the fact. The evidence, however, seems conclusive that in most cases any effort to combat or to conceal the tendency to use the left hand is an effort to combat what is natural, and to this extent it is also a tendency to interfere with the possibilities of the fullest coördination, skill, and power of the muscular and nervous system of the child.

Doctor Schaefer, a school medical inspector of Berlin, has, according to the *Journal of the American Medical Association*, made some interesting researches regarding the left-handedness of the school children of that city. He found that it was more common among the lower classes than among the well-to-do; that efforts to conceal it were common; that heredity from parents was present in 16 per cent of the cases, from grandparents in 8 per cent of the cases, and that it had existed for at least three generations in 2.45 per cent of the cases; that there had been simultaneous occurrence of it in blood-relatives in 33.5 per cent of the cases; and that altogether heredity was recognizable in 60 per cent of all the left-handed children. According to his statement, there were over 9000 naturally left-handed pupils in the schools of Berlin. Consequently over 9000 children were being trained contrary to their natural inclination, and this to their detriment, as was shown by their writing, drawing, and hand work. "It would be better," writes Doctor Schaefer, "if more attention were given to this congenital condition and the compulsion to use the right hand were suspended in the cases of left-handed

children. The left hand should not be left untrained in left-handed children at this period of education, but should be held as of the same importance in education as the right hand among the right-handed." Left-handed pupils, he affirms, should write, draw, and work with the left hand, as the others do with the right. At least it would seem to be unwise, either in work or recreation, to do more than encourage efforts to use the right hand, and then only with the very young and not beyond the point where natural left-handedness is evident.

CHAPTER III

DEVELOPMENTS DIRECTLY AFFECTING THE SCHOOLS (*Continued*).

Special Types of Pupils.

DEFICIENT CHILDREN.—Some of the things that are receiving most attention at present in dealing with deficient pupils are:

(a) Their physical handicaps. This includes not only a careful physical examination in the school but also careful and sympathetic inquiry into food and general home environment conditions. If there are undeveloped or paralyzed muscles, physical exercises in the form of games, drills, and manual work are given with a view of securing coördination of eye and muscle and of will and muscle. If hearing or sight is defective, care is exercised in regard to position in the room and in the kind of work given or the sense appealed to. If the teeth are defective, the coöperation of the home is sought to remedy the matter. If speech or breathing is defective, the child is examined for adenoids or enlarged tonsils, and surgical or other remedies are sought and many exercises in articulation and deep breathing are given. Cleanliness of body and clothes is insisted upon and an effort is made to arouse a helpful and wholesome pride in these directions.

(b) Tests for "mental age" are also given. The best known for this purpose are the Binet tests (see 1911 "Annals"). The importance of knowing the stage of development in these deficient is of supreme importance, for the work must not be too difficult for their ability and yet the standard must be continually kept high enough to arouse their ambition and best effort. Tasks must not be impossible ones, and yet, when undertaken, they must be completed and without hasty or slovenly work. Every device is resorted to in order to discover the possibilities of the child.

(c) Careful observation is made to determine the line of best approach to the possibilities of the child. If the child is found to be auditory-minded, rather than visual, he is placed where he may study aloud and efforts are made to strengthen his visual memory. If, as is usually the case, the pupil is motor-minded, rather than thought-minded, the efforts at first are to educate him through interesting practical work with his hands.

(d) Efforts are made to find out what the deficient child can do best. As most of them have to make their own living, it is important to find their line of greatest efficiency in order to place them on a basis of self-support in the community. It is not an unusual thing to find that, where reasoning power is weak, machine-like ability is great; hence, if proper channels of effort are found, the social service of the defective may become well worth while.

(e) Keeping as close as possible to normal conditions of life has been found to be of the greatest importance in the education of defectives. This does not refer of course to institutional cases, although even there the principle applies. It is often a matter of surprise how readily the abnormal child, under favorable conditions, can be educated into the normal life of his environment. Besides, it is often difficult to determine whether the case is one of real abnormality or merely a case of retarded development; and abnormal work and abnormal conditions merely emphasize the abnormalities to be remedied. On the contrary, normal activities and normal surroundings make a constant appeal to the self-pride and self-assertiveness of the pupil and tend toward less self-consciousness—a putting out of mind of the deficiencies of which so many of these children are painfully aware.

(f) Great tact and good judgment must be used in the management of such pupils. They are usually at first awkward in their movements, inefficient and hasty in their thought and actions, exceedingly self-conscious and diffident, and are often exceedingly self-willed and stubborn. A discipline of fear is usually disastrous; while, on the other hand, a tactful encouragement until they begin to realize self-control and a satisfying ability, builds up a

pride and self-respect that make the management of such pupils easy. Sympathy and interest that make each individual feel that he is worth while, and that he has a fair chance if he will do his best, bring results with these former waste products of society which are of great credit to modern pedagogy.

DEFECTIVES AS A MENACE TO SOCIETY.—Doctor Henry H. Goddard, of the New Jersey School for Feeble-minded children, Vineland, N. J., has ventured the statement that at least 2 per cent of the children in any school system are mental-defectives and that some of the people we meet on the streets, who are not idiots or imbeciles, are mentally defective. These people, he says, can only be detected by psychological test, and yet it is dangerous for them to be at large, because they can no more resist temptation than can the child whose stage of development they have never outgrown. The vice problem which is now so acutely before the public mind, he says, will never be solved until we approach it from the viewpoint of defective mentality. "A big percentage of the girls of the segregated district are simply mental defectives. At least 25 per cent of all criminals are feeble-minded and commit crimes because they can no more resist temptation than can your own child of 5 or 8 or 10 years. One in every two habitual drunkards is feeble-minded. We are not sure that drunkenness causes feeble-mindedness, but we are certain that feeble-mindedness causes drunkenness.

"We must learn to locate the feeble-minded early in life, by psychological test at school, and treat them kindly, withdrawing them from the dangers and temptations of the streets. We must realize that the feeble-minded are seldom criminal, sullen, and dangerous when properly treated. They are merely persons whose mind has stopped growth at an early age, while their body has developed. It is possible to discover the age at which their mentality has halted and to train them to be splendid examples of the full, unrestricted, and uncontaminated mental development possible to that age. There is no more stigma attaching to the state of feeble-mindedness than should attach to your own child who is mentally at the age of the afflicted

person. Both should be kept off the streets and away from dangers for the same reason. Both are incapable of resisting certain temptations at times."

Cost of Education.

COST PER PUPIL IN 1851.—The following extract from the *Pennsylvania Freeman* of April 10, 1851, is interesting as a basis of comparison: "Philadelphia educates in her public schools 45,000 children at \$6.46 yearly. The expense of the system in Boston is about \$8 per scholar. In Cincinnati we believe that the expense is about \$15; in Baltimore, \$14." This paper was published in Philadelphia and was edited for a time by Whittier, who during that period lived in Philadelphia. His connection with the paper, however, terminated in 1840.

NEED OF MORE FUNDS.—State Superintendent Evans, in an address early in the year, called attention in a forcible manner to the great need of a more stable teaching force for the public schools. "Hundreds of classes," he said, "suffer from a too frequent change of teachers, many of them having two teachers during the same term." In his own State, Missouri, he found only 76 teachers, out of 8000 whose experience was investigated, who were teaching for the fifth term in the same school. He also found a number of school-districts in which the income from school taxes was ridiculously small and entirely inadequate. To remedy this condition he urged that the Missouri State school rate should be increased from 17 cents to 27 cents—17 cents of the tax to be devoted entirely to public schools and the remainder to be apportioned to the State University, the Normal School, and various supplementary educational interests. Superintendent Evans indicated a condition which is but too prevalent elsewhere, especially in rural and semi-rural districts. This is particularly noticeable since the scope and importance of education have been so greatly extended in recent years.

MONEY VALUE OF AN EDUCATION.—The Massachusetts Commission for Industrial and Technical Education has prepared figures, based on a study of 2000 actual workers, to demonstrate the actual money value of an education.

As the results of this study are valuable in the comparison of the money cost of education with its money value, some of the main conclusions are here given. The average results reduced to individual cases would be something like this: "Two boys, age 14, are both interested in mechanics. One goes into the shops, the other into a technical school. The boy in the shops starts at \$4 a week, and by the time he is 18 he is getting \$7. At that age the other boy is leaving school and starting work at \$10 a week. At 20 the shop-trained young fellow is getting \$9.50 and the technical graduate \$15; at 22 the former's weekly wage is \$11.50 and the latter's \$20; and by the time they both are 25 the shop-worker finds \$12.75 in his pay envelope, while the technically trained man draws a salary of \$31." As was stated, these figures are based on a study of 2000 actual workers in the field of industry, and, no doubt, are as representative as they are significant of the disadvantages of starting the life work with inadequate preparation. They also furnish one of the strongest possible arguments for adequate provision for making the schools as efficient as possible, both in their appeal and in their accomplishments.

CENSUS RETURNS AND ILLITERACY.—Preliminary figures show that in 1910 there were 47,332,277 males and 44,639,989 females in the United States, not including Alaska and its other possessions. This gives an average of 106 males to every 100 females, as against 104.4 males to every 100 females in 1900. The excess of males is mainly due to the extensive immigration, a much larger proportion of the immigrants being males. In the foreign-born white population there are 129.2 males to every 100 females. However, even the native white population shows a ratio of 102.7 males to every 100 females. In the negro population the number of females exceeds the number of males, the ratio being 98.9 to 100. Among the Indians the ratio is 103.5 to 100; among the Chinese in this country 14 to 1; and among the Japanese 7 to 1. It is interesting to note that in most European countries the females outnumber the males, the ratio of males to every 100 females being as follows: In England, 93.6; in France, 96.7; in the German Empire, 96.9; in Switzerland, 96.4; in Italy, 99; in Austria, 96.7; in Hungary, 99.1; and in Russia, 98.9.

The preliminary figures also show that in 1910 there were 71,580,270 persons 10 years of age or over in the United States, of whom 5,517,608, or 7.7 per cent, were unable to read or write. The smallest percentage of illiterates was among the native whites, being only 3 per cent. Among the foreign-born whites the percentage was 12.8; while among the negroes it was 30.5 per cent. It is gratifying to learn that the total percentage of illiteracy decreased from 10.7 per cent in 1900 to 7.7 per cent in 1910; that among the native whites it diminished from 4.6 per cent to 3 per cent; and that among the colored people the decrease was from 44.5 per cent to 30.5 per cent. The foreign-born whites showed practically the same percentage of illiteracy at the two periods, being 12.9 per cent in 1900 and 12.8 in 1910.

School Administration.

The words of ex-Secretary of the Navy, George von L. Meyer, very tersely express what should be the attitude of boards of school administration toward their part of the educational work. In speaking of the development of the American Navy, he says, "Although there should be no waste either in expenditures or effort, economy is a much abused word; it is often used as a synonym for 'parsimony'; light expenditures are frequently alluded to as 'economical expenditures.' But no idea could be further from the truth. True economy is almost synonymous with efficiency, and as such both are essential." And this is especially true of an institution like the public school, which is so far-reaching in its effects and where anything but the best obtainable is false economy. The Secretary's policy for the American Navy is therefore an eminently appropriate policy for the administration of the schools, where expense must not be spared if adequate results are the goal. And this thought applies in the school as in the navy to expenditure of effort as well as to expenditure of money.

SCIENTIFIC MANAGEMENT OF THE SCHOOLS.—The developments in the "scientific management" of business and industry present some valuable suggestions for the administrators of school affairs. Nowhere is efficiency of management quite so fundamental as where such vital interests

as the educational and social welfare of human beings are concerned. The conservation of the time and the effort of the young is, after all, the highest type of conservation, and this can be effected if school boards, in their organization, legislation, and policies, work along such business-like lines as the following:

1. The attention of school boards and boards of education must be confined to matters of general policy, leaving details to the expert agents of the board.

2. The natural arrangement to secure the highest efficiency is for the board to employ four experts,—a superintendent of instruction, a superintendent of buildings, a superintendent of supplies, and a superintendent of finance,—each to be the head of a department over which with a committee of the board he exercises general control. The members of these four committees of the board should attend each other's meeting frequently enough to get a general idea of the methods of conducting business in the respective committees. Such a course enables the entire board to act intelligently on all legislation, and all legislation and general policies should be acted upon by the entire board.

3. The Superintendent of Instruction is, under the general control of the board, the natural administrative head of the entire school system, and should be consulted in regard to all legislation and all general policies receiving consideration by the board. He should also be kept informed by the heads of the other departments of sufficient of the detail of their work to enable him to exercise a general superintendence over all matters affecting the interests of pupils and teachers. For purposes of consultation and advice and that he may also know the will of the board, he should have a seat at all the meetings of the board and in all the meetings of its respective committees, although he should have no vote.

4. A system of reporting promptly and adequately the work done in the several departments should be required. These reports should be of such a character as to reveal in a simple and direct way the educational conditions, the progress of what has been undertaken, and a forecast of probable results and needs. They should be in a form that

makes them readily available for members of the board, school officials, taxpayers, and citizens at large.

5. Such standards of efficiency should be maintained as will tend to make of the teaching corps a progressively vigorous and efficient body; and in all the work, whether of teaching, supervision, or administration, these standards should put a premium upon economy and efficiency of service.

6. Full opportunity should be afforded citizens, the press, and all social and civic organizations, to understand and to discuss the educational program, with the full assurance that all well-considered recommendations from them will receive due consideration.

The laws and regulations governing the schools should provide for all these things. The weak spot in our entire school administration problem, however, lies not so much in the lack of proper school laws and regulations, valuable as these are, as it does in the way these laws and regulations are administered by those whom the people have chosen to represent their educational interests. And the weakest place in this weak spot lies in the fact that parents do not know, and will not take the trouble to find out, to what extent business, social, church, and political friendships and affiliations are permitted to sway the judgment and acts of those who legislate for their children in school matters. Nor are the teachers and superintending body, being the employees of these school boards, always in a position openly to reveal such derelictions of public trust. Public sentiment can do much, and an independent and fearless public press can do more, to remedy this serious defect; but, unless we select members for these boards who are more interested in the welfare of the child than they are in popularity or any other selfish interest, the educational machinery cannot run with the smoothness and economy of power that it should.

MEASURING EDUCATIONAL RESULTS.—The demands for the constant measurement of results which are becoming so common in business managements are also having a decided influence upon educational affairs. Naturally the first things to receive attention were school records and the cost of education. But it soon became apparent that a great variety of practice in regard to recording these matters made it

practically impossible to compare the statistics of one place with those of another and, indeed, often to see the relative cost of similar things within the same school system. A demand at once arose for sufficient uniformity in the keeping and reporting of certain essentials in regard to expenditures, attendance, etc., to make it possible for trustworthy comparisons to be made. In doing this, however, it became evident that there is something more fundamental than mere cost in education, and that is, the relation between the result and its cost. No business man hesitates in these days to increase his expenditures if he has reasonable assurance of a corresponding increase in the return product. As the business man can set a money value upon practically all his product, his ability to estimate the relation between his expenditures and his results, and therefore the general efficiency of his plant, is comparatively easy. He can standardize cost and selling price and readily compare the result. It is not so easy, however, to find the standards of measurement in educational results that are fundamental if the relation between cost and product is to be easily seen and a measure of the efficiency of a school system established.

No one questions the desirability and possibility of establishing uniform units of cost and the uniformity in records that will make general comparisons possible; but, because of the spiritual character of much of the best work of the school, many regard the possibility of establishing reliable standards of measurement of teaching results as hopeless. The necessity and possibility of such standardization are, however, strongly urged by several writers in the May issue of the *School Review*. Doctor Leonard P. Ayres, of the Russell Sage Foundation, calls attention to the fact that, although 15 years ago when Doctor Rice attempted to compare the results in spelling in different schools there was general disbelief and scathing denunciation in regard to his efforts, at the St. Louis meeting last February there were no less than 48 addresses and discussions concerning tests and measurements of educational efficiency. And, as indicative of the possibility of reliable standards of measurement being established, he calls attention to Thorndike's measuring scales for handwriting, Stone and Courtis's standardized tests in arithmetic, and Hillegas's method for

measuring the quality of English composition. An effective start has therefore been made and, in answer to the claim that we can never determine with mathematical accuracy the degree to which the strong man and the noble woman can influence for good the characters of their pupils, he replies that in education, as in other pursuits in life, character and efficiency go hand in hand and we are already in our tests and examinations placing valuations upon efficiency. "As school executives make practical application of the newer scientific tests, no fact stands out with more impressive distinctness than that the teachers whose classes make the best records are the teachers who are the most truly successful in the shaping of character." This statement of Doctor Ayres will, no doubt, be questioned by many because of exceptional cases coming under their observation. But in justice to his thought it should be remembered that he is maintaining it as a general fact and is not dealing with exceptional cases.

In answer to a second objection to the effort to standardize results,—namely, that such scientific methods would tend to reduce all work in education to the dead level of uniform precision,—he answers, "This charge is born of a complete misunderstanding of the ends, aims, and processes of the new method. Its aim is not uniformity but individual development." Objectors are, of course, thinking of the tendency in the industrial world to standardize results as well as measurements, and that, even here, as soon as the minimum required is passed and the effects of the human elements of tact, good judgment, executive ability, ingenuity, initiative, etc., enter into the accounting, exact measurements become difficult, if not impossible. However, in education is it not true that judgment standards and valuations may be placed upon even these higher qualities without in any way militating against the influences for good work from the individual child? At any rate, as Doctor Ayres says, "The object of the new method is the substitution of evidence for opinion and of knowledge for speculation." And this is in accord with the newer scientific demand for a satisfactory basis for estimating results. It shifts the past position of inquiry as to "What results can or might we get?" to the present position of "What results are we

getting?" This makes the pupil and not the teacher the centre of interest.

A second article by Doctor Edward L. Thorndike, of Columbia University, deals with some of the measurements that may safely be applied to educational products. Doctor Thorndike admits at the outset the difficulties in the way, because "The facts are extraordinarily complex, very widely variable, and do not at all readily suggest units, scales, or graded standards by means of which they may be identified, compared, and related." However, he suggests that the valid scale for other measurements may well be used as a basis for measuring the educational products. The scale for weights, for example, provides four things: (1) A series of perfectly definable facts—all men all over the world know exactly what is meant by 2 grams or 4 grams; (2) each amount is a different amount of the same thing—4 grams is a definite quantity of the same thing as 2 grams; (3) the differences between any two of the amounts are perfectly defined in terms of some unit of difference—the step from 2 grams to 3 grams is the same as the step from 12 grams to 13 grams; (4) the zero point of the scale is absolute—it means just barely not any of the thing in question.

"Can we, then, in a science of education, get a series of perfectly defined points of the amount of some thing, so that all men may know what each man means by the statement he makes, as all know it in the case of 'one gram' or 'two grams'?" He says that we already have certain descriptive terms that we use to indicate the general character of educational results. We say, for example, "He writes a good plain hand;" "His knowledge of German is about equivalent to that required for passing intermediate German;" "It is of C grade;" "That is 'good' and is worth 80;" etc. "Now, it is an easy task, theoretically, for educational science to take these vague, ambiguous statements of common sense and refine them as physical science has in the past refined similar measures in the case of physical facts. We can, for example, define a good plain hand by printing a sample of it. In the case of spelling, we can define a point on the scale as the ability to spell words as hard as, but not harder than, 'at' and 'go' or 'wish' and

'touch,' and so on to 'millinery,' 'development,' or words of any difficulty we choose. We could, in the case of German, agree upon a series of passages, graded in difficulty of translation, and say, 'What we mean by ability 'four' is the ability to translate *this* passage with a certain degree of precision, but not to translate the next more difficult passage,' and so on. Such a series of passages would be easy enough to get, and would define for us points in this particular scale. Similarly we could get a series of originals in mathematics, graded in difficulty, which would define a series of points on the scale of mathematical ability. We could in the same way define the amount of merit in an English composition by an actual sample."

However, in this measuring we shall have to keep in mind the second requirement of our ideal scale—the different amounts must be amounts of the same thing. For example, in measuring ability in arithmetic, we are actually measuring two different things,—sheer mathematical insight and knowledge, on the one hand, and acquaintance with language, on the other. A pupil may know that 2 and 3 make 5 and yet not be able to grasp the language of a problem involving this simple operation, and, as a result, fail in its solution. In spelling we must not "mix up knowledge of spelling proper with an acquaintance with words and meanings." To be able to spell *each* and *are* requires mainly spelling ability; but the ability to spell correctly the words "Popocatapetl" and "Abracadabra" requires largely a wide knowledge of the language. Part of the difficulty which pertains to translating a passage from a foreign language arises from the difficulty of understanding the general thought of the passage.

The third point in our ideal scale, which requires that the differences between any two scale points or values should be rigorously and perfectly defined in terms of some unit of difference, involves matters concerning which but little has been done in our educational practice. While we may mark one pupil 90 and another 91, we realize that this one unit of difference does not at all parallel the unit of difference between 69 and 70. "Most of the quantities that we assign in education signify only relative positions, really. We perhaps make a pretense at their being differences in amount.

. . . We do not know what their proper ratios are, however. . . . We do not know whether the step from a barely legible handwriting up to a good plain hand is equal to, less than, or greater than, the step from a good plain hand to a perfect copper-plate writing; much less could we put the differences in terms of an exact ratio." But differences in relative merit can be turned into precise differences of amount. Take equality of steps of difference, which is the simplest case. We may safely say that two differences are equal which are equally often noted. "If, for example, we had four samples, 1, 2, 3, and 4, of English writing, such that 80 per cent of an expert group said that 1 was better than 2, whereas 20 per cent said that 2 was better than 1, and 80 per cent said 3 was better than 4, and 20 per cent that 4 was better than 3; then, in a very important, and, with certain limitations, true sense, we can say that the difference between 1 and 2 is equal to the difference between 3 and 4, because it is equally often noticed by equally competent judges." This method was first used, rather roughly, by Sir Francis Galton and has been used by Professor Cattell and others at Columbia; and it is used in many fields of human life, apart from education.

The last point in a valid scale of measurements, the absolute zero, is important because "A person cannot think accurately or wisely about any quantity until he has referred it to an absolute zero on some scale." And such zeros can be got, at least approximately. "For example, if we define the zero ability in spelling as the ability to spell a word like 'go' or 'so,' we shall not be far astray, for, if a child has reached a point where he can be measured at all in respect to spelling and is not able to spell these words, he is approximately at just not any ability at all in spelling." If a pupil knew that "*ja*" in German meant "yes," but did not know that "*nein*" meant "no," he would be so close to the zero point in his knowledge of German that our error would be slight. "If we get scale points defined, and their distances defined, and establish an absolute zero, there is no further difficulty in constructing a scale for achievements of human nature. Such scales have every logical qualification that any of the scales for physical measurement have."

Doctor Thorndike admits that he chose for his illustrations the simpler and easier cases, but maintains that the arguments would apply equally well "to the sense of evidence in history, excellence of judgment in affairs, devotion to the common good, or any quality, no matter how complex, that one may take." He also refers to two or three objections to such educational measuring. First, the objection "All this is unnecessary; the good old adjectives are enough for educational work," he answers by saying that they probably are "for the kind of work that the person who makes this objection usually wishes to do." Second, the stronger objection, that the common-sense judgment of a first-rate teacher without these units and scales is better than the action of the stupid or incompetent person would be with them, he answers by saying, "It is precisely the work of science to get good work done by those of us who are rather mediocre." Third, the objection that "The personal, spiritual work of education—the direct human influence that the pupil may get from the teacher—is not in the domain of exact science," he says is no valid objection; for "Mothers do not love their babies less who weigh them," and "We do not serve our country less faithfully because we take its census, survey its coast line, or compute its resources."

These two articles are noted at some length to show the interest in the subject, to suggest methods of approach in its solution, and to indicate the probable difficulty of securing satisfactory units and scales of measurement. If such can be worked out and applied in a way that will assure better results, it will do much toward convincing the honest critics of the schools of the real value of the work being done, as well as toward placing teaching more firmly upon a professional basis.

DEPARTMENTAL TEACHING.—Some hitherto strong advocates of departmental teaching are beginning to wonder whether, after all, such a plan does not foster responsibility for subjects rather than responsibility for pupils—whether, in the anxiety to promote knowledge, the more important thing, the child with its individual needs, is not left without any one upon whom rests a sense of special responsibility for its welfare. If this shall become apparent, the

schools where the departmental plan prevails will no doubt swing back to a plan of organization and work that fosters care for the more important things in the child's education.

On this subject of specialization Chancellor W. H. Payne, of the University of Nashville, has this to say: "As the school proposes to train men and women . . . rather than grammarians and logicians, it is of the first importance that those who teach should be men and women in this catholic and wholesome sense. I feel sure that my words will not be misconstrued when I say that a teacher's usefulness diminishes in proportion as he sinks into a mere specialist, and that the primary quality of an instructor is breadth of intellectual vision and of scholarly attainment."

BEST AGE TO ENTER SCHOOL.—Doctor Leonard P. Ayres, of the Russell Sage Foundation, published an article in *Education* for February, embodying the results of his recent investigations of the relation between the age of entering school and subsequent progress. As the answer to the question "What is the best age at which to send a child to school?" is of interest to parents and teachers, a brief summary of the conclusions reached by Doctor Ayres follows:

The teacher has almost invariably held that the best entering age is relatively low; while the physician, who is looking at the matter from a different stand-point, places it relatively high. There has been a great deal of discussion of the matter, and Inspector W. H. Winch recently made an important contribution toward its solution by an investigation in England, the results of which have been published in a monograph entitled "When should a Child begin School?" But the English child is usually entered in school at the age of 3 or 4, and Mr. Winch's main inquiry was as to whether or not this practice produces beneficial results; hence his conclusions, although favorable to early entrance, are of no great service here where most children enter at 5 or 6 and under conditions in home and school that are apt to be different from those in England.

Doctor Ayres' conclusions are based on three separate studies of the school histories of pupils who had covered the entire work of the elementary grades, entering in the first grade and continuing until graduated for entrance to the

higher schools. The first study was of some 25,000 pupils in the schools of New York City in 1908. The second included all the eighth grade (graduating) pupils of New York in 1909, some 16,000 in all. The third was a study of the entire membership of eighth grades (graduating) of 29 cities and was made at the close of the school year 1910-11.

The results of these investigations, Doctor Ayres claims, "expose the fallacy of the common assertion that the child entering late easily catches up with the one who begins early"; although he admits that the per cent of slow (retarded) pupils is greatest among those entering at a relatively low age and the most rapid progress is among those entering at advanced ages. His claim, however, is that from his present viewpoint "the best entering age is the one that results in a large proportion of normal pupils, combined with the most equal balance between the rapid and the slow groups." His statistics show the best results in these respects from those entering at six, as 52 per cent of such pupils made normal progress, 27 per cent rapid progress, and 21 per cent slow progress.

Keeping in mind the fact that these investigations considered only the time element under our more or less arbitrary systems of promotion, and did not enter into the question of what might be true if the child's progress were dependent only upon his capacity, the following conclusions throw considerable light upon the relation between entering age and subsequent progress under existing systems and conditions: 1. Children entering at advanced ages subsequently make more rapid progress than those who enter younger, but this greater progress is not sufficient to enable them to overtake those who entered younger. 2. The entering age of 6 is the one resulting in the largest proportion of pupils making normal progress and finishing at normal age; and it is also the entering age that preserves the best balance between the rapid and slow groups of the school. 3. It is also the age that preserves the most homogeneous group judged on the basis of subsequent progress.

SCHOOL ALL-THE-YEAR.—The movement for keeping schools open during the entire year is beginning to take a firm hold, especially in the higher institutions. According to *Education* for November, the Harvard Engineering

School has recently decided to have no summer vacation. "The students work from 8 to 10 hours a day, and the total vacations in a year amount to about four weeks, the time being chiefly at Christmas and in the spring. The summer term begins June 22 and closes September 22. A number of other universities follow a somewhat similar plan. The University of Chicago has for some years maintained a summer term having equal weight with the three other quarters of the year. Even in the elementary school the plan has made some headway, particularly in the large cities. Cleveland, Ohio, formerly had an all-year schedule which included the summer term as one of four quarters, and a modified form of the Cleveland plan is in use in Newark, N. J., where it is being gradually extended from year to year. In the New York City schools, where the problem of sufficient school accommodations is a serious one, the authorities recently had under consideration an all-year plan which will, it is claimed, take care of practically all the children without recourse to part time. An interesting indication of the attitude of students themselves toward the all-year plan is afforded by the new Central Commercial and Manual Training High School at Newark. Thirty per cent of the pupils of this school voted in favor of continuing the school throughout the summer."

Among the advantages claimed for the all-year plan for public schools are: (a) The children are healthier and happier in school than on the streets. (b) The children obliged to leave school as soon as possible can by this means advance farther than at present. (c) Backward pupils are given an opportunity to make up back work. (d) In higher institutions it helps to meet the nation-wide demand for efficiency, not only on the part of those who must get such efficiency through continuation school work but also on the part of those who are competent to make more than ordinary preparation for their life work.

COURSES OF STUDY.—The Commissioner of Education for the State of New York, the late Doctor Andrew S. Draper, in a recent address took the broad ground that the schools must give the public what it wants and needs, regardless of the views of doctrinaires. Because of his extended public service, the words of Doctor Draper deserve

the careful consideration of all interested in the satisfactory administration of our schools. He said, in part, "The hand of all authority in America is heavy or light to the extent that it is supported by public sentiment. The hand of educational leaders is heavy or light to the extent that it is upheld by educational opinion. There is no opinion so unfettered as educational opinion. It is so jealous of its freedom that it sometimes goes astray. But it never supports authority that does not seek aid from all the learning of the world. It resents any exclusion of any knowledge. It would ridicule any pretended educational authority that did not recognize the influence of the ancient tongues upon modern speech, and that did not lay hold of whatever there was in ancient civilization that may enrich the civilizations that are or are to be. But it would better be said, and with all plainness, that our civilization is no longer in Greece, or Rome, or Gaul, or even Britain; that we are not living in the first, the tenth, or the eighteenth century; that the streams of learning are now gathering in many high places, trickling down many mountain sides, making mighty rivers and boundless seas, and sending back their distilled dews to irrigate and fructify the intelligence of the world. *We are in a free country where men and women have everything to study and are going to study what they please.* It is the business of State educational authorities to try to provide them with whatever branches of study they will accept and with the educational helps that will illuminate the vocations which they are to follow. *The State may aid but not force their choice.*"

SCHOOL FRATERNITIES.—The movement against school and college fraternities received marked impulse during the year through the publishing of Owen Johnson's "Stover at Yale"; because of the number of prominent educators who denounced them as undemocratic and therefore as un-American; and on account of the increasing number of restrictions placed upon them, especially in schools under State and municipal control. Authorities seem to be convinced that such organizations are so contrary to the spirit of our entire educational ideal that they must not be countenanced in institutions supported by the public, and that they are also apt to interfere seriously with the rights of

many who pay for the privileges and benefits of private educational institutions.

The whole effort of instruction in a democracy should be toward destroying, rather than encouraging, distinctions based on class and condition. Every student is supposed to be on an equal footing with every other student in any American school, at least in so far as his opportunities for development and standing along educational and social lines are concerned. While naturally those interested in certain studies or other lines of interest will group more or less together, it should be in organizations open to all who are in good repute and should have none of the dangerous and damaging character of the secret-fraternity idea. Although many such school and college fraternities have undoubtedly been of a high character, the tendency when they are removed from close surveillance is toward idleness, dissipation, and a thoroughly undemocratic snobbishness. They have also been the source of bitter discouragements and heart-burnings to many worthy persons who have felt humiliation at being shut out from the full companionship of those with whom they associated in the regular work of the school.

The Bureau of Education at Washington reports a number of judicial decisions upholding the action of school boards in various places in their efforts to suppress or control secret organizations among the pupils of their schools. Two typical decisions are quoted:

"Wayland *vs.* Board of School Directors of District No. 1 of Seattle, *et al.* . . . Held, that a rule of the board of school directors providing that any student who becomes a member of, or in any way pledges himself to join, any high-school fraternity or secret society, or initiates or pledges any other student, or in any way encourages or fosters the fraternity spirit in the high school, shall be denied all the privileges of the school except those of the class-room, was reasonable, and that said board had authority to make such rule . . . 86, p. 642."

"State *ex rel.* Dresser *vs.* Board of Education of St. Croix Falls (Wisconsin). . . . The school authorities may suspend a pupil for an offence committed outside of school hours, and not in the presence of the teacher, which has a

direct and immediate tendency to influence the conduct of other pupils while in the school-room, to set at naught the proper discipline of the school, to impair the authority of the teachers and to bring them into ridicule and contempt." Same . . . "The discretion of school authorities in government and discipline of the pupils is very broad, and the courts will not interfere with the exercise of such authority except when illegally or unreasonably exercised. 116 N. W. 232."

A large number of cities and many of the States now have rules or laws prohibiting pupils of public schools from organizing or belonging to secret societies composed of pupils of such schools, or from soliciting other pupils to join such societies, and either withdrawing all but class-room privileges from those who so offend or suspending them from school or from the privileges of graduation, after due notice, until they withdraw from membership.

Doctor Kerschensteiner's Opinion of American Schools.

As revealing the impressions of an experienced foreign educator, the two articles on the People's Schools of the United States, contributed by Doctor Kerschensteiner to a South German journal, are of interest. His observations covered a period of two months spent in visiting schools in a number of cities of the East and the Middle West. These observations, of course, naturally interpreted themselves to him on the basis of his home conditions, but they are clear and show a perspective that is the result of broad pedagogical training and experience.

1. He notes the lack of organic unity in the school systems of various places due to there being no national centralization of the system of popular education. This is in marked contrast to German conditions, where the people in general accept the system provided by the central government. In the United States each State, and to a large degree each city, has the kind of school that best fits into the general conditions of its population. While this has its advantages, it also has its disadvantages; for, where for any reason the cultural conditions of the community are low, the school system is apt to be poor and sometimes even

miserably so. In Germany, aside from minor details, precisely the same organization prevails everywhere, with homogeneity and relatively uniform excellence in the work in different places.

2. The active interest taken by the people themselves in matters of education is a bright side of the American system. This is a concomitant of the direct responsibility of the community for its schools and makes impossible a permanent deterioration in the schools. Although he found conditions that he regarded as deplorable, owing to the grasp of "political corruption" upon the systems, almost everywhere he found evidences of improvement. He seems to have been particularly pleased with three aspects of school administration in St. Louis,—the election of the members of the board of education by popular vote; the strict precautions that are taken to preclude the presence of material or other interests that may influence the choosing of this board; and the immediate control by the board of its own budget.

3. His attention was attracted by the great variation in the age of the pupils in the same grade, due, particularly in the large cities, to the foreign element in the population. This produces a complex situation, which, however, he feels is being managed with success.

4. Some of the things that he particularly approved were: (*a*) The breaking up of the daily session by a noon intermission—this he regards as preferable to the German practice of holding a continuous session to one o'clock. (*b*) The sectioning of classes, which he saw in many places, generally on the basis of quality of work, one of the divisions thus formed receiving direct instruction from the teacher while the other is engaged in preparatory study or busy work. (*c*) The possibility which he found in certain schools of pupils being advanced by subjects. This makes it possible for a pupil to be in the sixth grade in reading and writing and only in the fourth grade in arithmetic. This he regards as an improvement upon German conditions, where such a thing is unknown. (*d*) The possession of adequate school libraries, of an abundant supply of history and geography books, and of excellent reading matter. This promotes an acquaintance with good literature to a far

greater extent than is possible in Germany with its "poor reading-books and its miserable school libraries." (e) In arithmetic and geometry the scope of the instruction exceeds that in most German schools and is well carried out. In drawing and the natural sciences, however, while about the same ground is covered as in the German schools, false methods in drawing and insufficient equipment in natural history prevail in the schools visited, and the results are therefore unsatisfactory.

Doctor Kerschensteiner concludes, with approval, that the fundamental aim of the public schools in America is to educate for citizenship. He says he left this country with the conviction that no nation of the earth makes greater sacrifices for its public school system, nor relies more firmly on the strength of this factor than do the people of the United States. And he adds that this comparatively young nation has "school organization and educational results at hand that are to be compared with the best of the earth, and from which we Germans can learn quite as much as once the Americans learned from us." The impressions of this noted foreign educator are interesting in that they reveal what others see in our educational work. Much that he approves is already generally accepted by educators in this country. But there are other points that might well be open to question before permitting them to modify our practice. (See the *Educational Review* for April.)

CHAPTER IV

DEVELOPMENTS AFFECTING THE VARIOUS TYPES OF SCHOOLS.

The Kindergarten.

THE FUNCTION OF THE KINDERGARTEN.—Miss Lucy Wheelock, of Boston, gave, in a paper read before the N. E. A. on "The Function of the Kindergarten in the Public School System," and which was published in the *Journal of Education* of March 14, an excellent review of the arguments in favor of kindergartens. "All kindergartners," she said, "would agree on three fundamental Froebelian principles. These are the importance of each stage of growth, the development of self-activity, and the belief that we are all members one of another. To exemplify these in practice through specially selected means and the organization of the play activities is the function of the kindergarten." She then says that if it is true, as claimed, that nearly 50 per cent of the school children leave before reaching the sixth year, and that the average period of school attendance is only 5 years, then every year conserved for education at the beginning is of the utmost value. "It would also seem economically desirable to give the best tuition and guidance at the beginning when the kind of world each child is to see and to make is largely determined."

She claims that the kindergarten is also of value to the school system because it minimizes the number of retarded children. "About one-half of all retarded children are retarded in the first two years of school life. The retarded pupils cost the taxpayers upward of \$25,000,000 a year. They cause four-fifths of the nervous strain of the teachers. They rob the rest of the pupils of much of the teacher's attention that belongs to them." But of even

more moment than this is the importance of these early years in giving trend to the life. "The advocates of the theory that the young child is a little animal, and should be left free to carry out his animal impulses in some convenient back yard, forget the scarcity of back yards in a congested city district. They also ignore the world-wide proof of the assertion that those who guide the first seven years of a child's life may make of him what they will."

To show how the kindergarten has been assisting in developing the self-activity of the child, she says: "For the thirty years of its existence in this country, the kindergarten has held to special educational materials designed to aid and abet the child's self-activity. These materials are used to develop the powers of observation, comparison, investigation, experiment, and invention. They are organized into a series that there may be progressive guidance and consecutive exercises. They offer means of sense training, but this is not their final purpose. Neither is motor training or manual training the chief end. Their goal is efficiency, which is the power to do, to produce." The materials for this productive activity are developmental, not didactic,—that is, sense training and motor training are only part of the educational plans of the kindergarten. The song, the rhyme, and the story are all used to appeal to feeling and to influence the imagination. And any system of early education that disclaims any appeal to the imagination because it is unpractical is itself in error; for "it is not unpractical to ignore the faculty which has built cities and adorned them, bound together continents, and given to man the bread of life."

Then, too, the kindergarten serves a large purpose as a place for social training. "It would be difficult in a public school system to promote any theory of education which did not recognize the value of group and coöperative work. School is not a preparation for society. It is society." Finally Miss Wheelock sums up the value of the free play of the kindergarten in the statements, "Free play gives scope for the development of individuality. It originates. It discovers. It explores. It gives freedom and power."

The Montessori Methods.

GENERAL CONSIDERATION.—Anna Tolman Smith, writing for the Federal Bureau of Education, attributes the exceptional interest manifested in Doctor Montessori's work partly to the new conception of the uplifting power of social life which is spreading throughout the civilized world, but especially to the exalted position given by scientific investigators and sociologists to education as a regenerative force. Education is rapidly coming to mean something more inclusive than the formal discipline which the word has heretofore implied. And the work of this Italian educator not only boldly claims to embody this new conception but it also appeared at the psychological moment in the great movement of training children along these larger social lines. Besides, this new system bears the stamp of her own high enthusiasm and is replete with energy—the “energy instinct as it were with the maternal passion, the passion for saving and upbuilding, which makes women the great conservative force in society.”

Then, too, teachers who have been following with eager desire the rapid progress of child study in its various phases—biologic, genetic, racial, individual—have come to distrust somewhat the educational psychologies and philosophies and have been in an expectant mood for some time. It is not that both the older and the newer lines of investigation and development in the study of the child have been fruitless, for education is largely an art, drawing perpetual inspiration and assistance from many sciences, rather than “the application of any well-reasoned and perfected theory.” Madame Montessori confirms this view where; after referring to experiments in elementary schools based upon a study of anthropology and psychological pedagogy, she says “the truth is that the practical progress of the school demands a genuine fusion of these modern tendencies, in practice and in thought.” And in the very beginning she disclaims any intention of presenting “a treatise on scientific pedagogy.” According to her own statements, therefore, her work is to be regarded as “an attempt at a fusion of hitherto dissociated tendencies.”

In its present stage, Miss Smith says, the work of

Doctor Montessori offers for consideration principally methods and material. But these are supposed to be arranged in accordance with the conditions of functional growth. And their adoption demands "new equipments in schools and a new purpose in the teacher." The teacher is to become an "observer" familiar with experimental methods. To do so, Doctor Montessori says, "we must make it possible for her to observe and experiment in the schools," and this observation and experimenting must in no way interfere with the *liberty of the pupil*. By "liberty" she means the absolutely unrestrained freedom of the individual to express himself—a different idea from the generally accepted view of a freedom circumscribed by social relations. It is well to remember that her ideas of education were inspired by her experience in educating defective children whose infirmities prevented their ready adjustment to these social relations, even in their most elementary form in the home life. The belief that the methods so successfully employed with these deficient children, "contained educational principles more rational than those in use," and that, "if applied to normal children, they would develop or set free their personality in a marvellous and surprising way," became with her a controlling idea. And it was under this conviction that she took courses in philosophy and pedagogy in the Italian universities and then supplemented this work with researches in the elementary schools.

It is well to note that, when Doctor Montessori came to apply her theories to the instruction of normal children, she threw certain restrictions around their "liberty," which indicate the difficulty to be experienced in carrying out to its full conclusions any theory that in any way conflicts with long-established and well-accepted practice. These restrictions require parents to pledge themselves to send their boys and girls to the "Children's House" at the appointed time, clean in body and clothing and provided with a suitable apron; to show the greatest respect and deference toward the directress and toward all persons connected with the school; and to coöperate in every possible way in the education of the children. Once a week the mothers are expected to confer with the directress, to give information

concerning the home life of the child and to receive helpful advice in regard to this life from the directress. There are rules also that children shall be expelled who present themselves in unwashed or soiled clothing, who prove incorrigible, or whose parents fail in respect to those in charge of the work, or who destroy through bad conduct the educational work of the institution.

METHODS.—The methods of training advocated by the Montessori system may be treated under three separate heads, although in practice these are not to be regarded as distinct. These are: (*a*) The methods relating to the physical state and development of the child; (*b*) those relating to its mental development; and (*c*) the attitude of the teacher during the act of learning.

(*a*) The essentials in dealing with the physical child are regarded as embracing such things as measurements of height, weight, etc., at regular periods; periodical medical inspection; and furnishing favorable opportunities for the development and strengthening of the body in the arrangements and furnishings of the school. Through the coöperation of the teacher and the physician, the medical inspection is made to include the sanitary inspection of the home and a sympathetic interest in its economic condition. Some of the physical measurements require a professional expert, but the more simple ones are taken by the teachers at the time of the weekly bath. All the arrangements and furnishings of the school are so planned as to promote the spontaneous self-activity of the child and to foster the principles of liberty which are regarded as so fundamental in the work. To this end the playground and garden communicate directly with the school, and the chairs and tables used by the children are all light and easily moved by them without any assistance. The pictures used for decoration are selected with a view of awakening the æsthetic sense through well-selected pictorial symbols.

(*b*) The principle of liberty is used as a means of discipline and for mental development, and the teacher is asked to repress only those activities which interfere with the interest of others. Free activity is to be promoted from the biologic rather than the social stand-point. Liberty must be understood, the author says, "as demanding the

conditions adapted to the most favorable development of his (the child's) entire individuality." And this is to include the physiological as well as the mental side of his nature. Hence the methods are all individualistic, or as Doctor Montessori says, "Toward single individuals, one by one observed, education must direct itself." In criticism of this Miss Smith says that it is evident that such a conception of education can be applied only to very young children, as the impulse toward associate action, rather than merely individual action, soon manifests itself and becomes in later childhood and youth one of the strongest impulses in human beings.

(c) In no one thing is the Montessori system more radically different from existing systems than in what it requires of the teacher. According to Doctor Montessori's own statements the teacher is to be an observer rather than an instructor, a psychologist rather than a teacher. "In fact," she says, "when the child educates himself, and when the control and correction of errors is yielded to the didactic material (and is no longer regarded as a function of the teacher), there remains for the teacher nothing but to observe: She must then be more of a psychologist than a teacher, and this shows the importance of a scientific preparation on the part of the teacher." The thought is that the didactic system of objects and exercises which Doctor Montessori has prepared will of itself attract the attention of the child, and both hold it and normally develop it, because it presents a rational gradation of stimuli. While the teacher is expected "to direct the psychic activity of the children and their physiological development" in other respects she is to be only the scientifically trained observer. Because the teacher is to teach little and to observe much, Doctor Montessori has changed the name of *teacher* into that of *directress*. Such a directress must have a clear idea of the two important factors of her work,—the guidance of the child for its spontaneous self-education and the individual exercises through which this may be obtained. Only then is she fit to deal with the child—only then will she know when and how to intervene in an opportune and profitable way.

The following gives in a general way the winter daily program in the Montessori schools in Rome:

DAILY PROGRAM.—Opening at 9—closing at 4.

- 9-10. Entrance. Greeting. Inspection as to personal cleanliness. Exercises of practical life; helping one another to put on and take off the aprons. Seeing that everything in the room is dusted and in order. Language: conversation period; children give account of the events of the day before. Religious exercises.
- 10-11. Intellectual exercises. Objective lessons with intervening short rest periods. Nomenclature: sense exercises.
- 11-11.30. Simple gymnastics, embracing performing ordinary movements gracefully, normal position of body in sitting and walking, marching, salutations, movements for attention, placing objects gracefully.
- 11.30-12. Luncheon. Short prayer.
- 12-1. Free games.
- 1-2. Directed games, if possible in open air. During this period the older children do such practical work as cleaning the room, dusting, etc. Inspection for cleanliness. Conversation.
- 2-3. Manual work. Clay modelling, design, etc.
- 3-4. Collective gymnastics and songs, if possible in open air. Exercises to develop forethought; visiting and caring for plants and animals.

Note.—All these exercises are to be brief, simple, objective, and individual, the teacher taking great care not to offend against the principle of liberty by interfering.

The essential elements in all exercises of the program are the same,—excitation of the sensorium, motor reaction, scientific observation by the teacher.

Three classes of exercises have been selected by Doctor Montessori as best giving the training desired. These are exercises pertaining to: (1) Muscular coördination; (2) sense perception; (3) sense discrimination.

(1) For muscular coördination she has prepared special gymnastic exercises carefully selected with reference to the relation existing between the child's limbs and his body. Attention is called to the fact that, if the little child is not strong, the erect posture and walking are sources of fatigue, and the long bones of the leg are apt to become bowed or otherwise deformed in sustaining the weight of the rest of the body. Hence such apparatus as parallel bars supported by upright poles of proper height, swings, pendulums which the child can strike back and forth while seated, spiral

stairways with railing, and other apparatus in which part or all of the weight is removed from the legs, has been devised. Games and plays are also used to secure muscular coördination, just as in other systems, as are also manual work and the care of animals. But, in addition to these, a very ingenious system of useful finger exercises is used to train children to do the buttoning, lacing, tying bows, etc., necessary in dressing themselves. These exercises, Miss Smith thinks, are "no more ingenious nor scientific (for muscular coördination) than similar exercises in the modified kindergarten and in ordinary infant schools." However, they do indicate the practical bearing given to the Montessori work wherever possible.

2. For educating the senses, Doctor Montessori says, "The method used by me is that of making a pedagogical experiment with a didactic object and awaiting the spontaneous reaction of the child." For these pedagogical experiments she has invented didactic material "which she has purposely adapted to cause the child to exercise his senses." Hence, while her didactic material bears a close analogy to the material used in psychological experiments for sense measurement, the material invented is not based on the conclusions of experimental psychology but rather on the basis of what appeals to the child. The systematic education of the senses of vision and hearing is conducted very much as in schools for defectives, excepting that in the "house of childhood" special emphasis is laid on isolating the sense to which the exercise is, for the time, directed. This is done as a means of increasing its perceptive and discriminating power.

3. A great deal of emphasis is laid upon the training of the sense of touch as the most primitive and discriminating of the senses. Excepting in such defectives as the blind and the mute, the sense of touch and the thermic sense have received little consideration. On both of these, especially the tactile sense, the Montessori system lays a great deal of stress. The principle of cleanliness is combined with the training of the thermic sense. The material used in tactile training consists of a collection of paper slips varying through many grades from smooth fine cardboard to the coarsest sandpaper; for the thermic sense it is a set

of little metal bowls filled with water of varying degrees of temperature. For the sense of weight (the baric sense), which is also trained, small wooden tablets of different woods and of different weights are used. All of these are arranged for sense training on the basis of sense discrimination. The visual sense is trained in the same general manner by using solid insets of wood of various sizes and shapes for the purpose of securing differential perception of form and color. Throughout this entire range of exercises for sense education the idea of a game is maintained for the purpose of amusing the children and holding their attention for auto-education.

Miss Smith thinks that it is the principle of auto-education that marks the great distinction between this system, "which is based upon biological notions," and the system of Froebel, "which from first to last calls into exercise the social and ethical impulse." But, strange to say, the Montessori system places much less stress upon the rhythm which should constantly be considered in a system based upon biological principles than do the Froebelian games and plays, although Doctor Montessori has noted the value of rhythm in securing muscular coördination. The lessons in silence, given to strengthen discipline and to supplement the tests in hearing, have a rhythmic element, but in the Montessori system they are given more as sensation experiments, to call attention to the fact that "we make so many noises of which we are not conscious and that there are degrees of silence," than for their biological value in the alternation of periods of rest with periods of activity.

WRITING AND READING.—Miss Smith says that, notwithstanding the fact that the distinctively new contribution made by the Montessori system to pedagogy "consists in the processes of muscular and sense training and the principle of growth upon which these are based," the part of the system that has attracted most attention and on which the author herself dwells with undisguised satisfaction is the teaching of reading and writing. It should be stated here that the Montessori system merely adds a few devices to the systems for teaching these subjects already in vogue. For the "spontaneous development of graphic language and the almost insensible transition to oral speech,

the Montessori system relies upon muscular dexterity and sense perceptions just as in other systems. It should also be remembered that the Italian language is a phonetic language and the association of written and oral speech is much simpler than in English.

Three periods are recognized in the work which is preparatory to writing and reading: (a) Such exercises, for developing the muscular mechanism used in writing, as outlining wooden tablets and metal insets with colored crayon on paper and then filling in the outline with the pencil held as in writing—outline drawings are also used in this same way; (b) exercises to develop “the visual muscular image of the alphabetical signs so as to establish the muscular memory of the movements necessary to writing,” and which make use of letter forms cut in sandpaper, over which the child passes the finger to emphasize and clarify the visual impression of form, the teacher at the same time associating the sound of the letter with its form; (c) exercises for the composition of words through the use of detached script letters so shaped as to give the appearance of a solid word when combined. The system lays stress upon the importance of such phonic exercises as shall train the vocal mechanism, apart from the use of the word as a language symbol, in order to control it for correct articulation at a time when it is most plastic.

Doctor Henry W. Holmes, of Harvard University, in his introduction to Doctor Montessori's book, says that there are certain aspects of her system that are in themselves striking and significant. “It adapts to the education of normal children methods and apparatus originally used for deficient; it is based on a radical conception of liberty for the pupil; it entails a highly formal training of separate sensory, motor, and mental capacities; and it leads to rapid, easy, and substantial mastery of the elements of reading, writing, and arithmetic”; and that, while all these things have before been proposed in theory and some of them put into practice, Miss Montessori has been the first to produce a system in which all these elements are combined. “The system is not original in the sense in which Froebel's system was original; but as a system it is the novel product of a single woman's creative genius.” Like

Froebel, Miss Montessori emphasizes sense training, but she does it in a more direct and elaborate way than Froebel. Out of Seguin's apparatus she has devised a comprehensive, scientific scheme for sense training. While Froebel's scheme was much broader and called for a more creative use of material by the children, Miss Montessori's plans are more closely adapted to sense discrimination. It is fundamental in the kindergarten philosophy as now generally interpreted, that sense training be made incidental to the constructive and imaginative activities in which the children are pursuing larger ends than the mere arrangement or knowledge of forms and colors. Of the two systems the Froebelian makes a far stronger appeal to the constructive imagination and genius of the child.

In physical education Doctor Holmes says that the two systems agree in practically the same way. "Both affirm the need of free bodily activity, for rhythmic exercises, and for the development of muscular control; but, whereas the kindergarten seeks much of this through group games with an imaginative or social content, the Montessori scheme places the emphasis on special exercises designed to give formal training in separate physical functions." In the social applications of these physical functions a radical difference between the two systems is noticeable. The games of the kindergarten are usually imaginative, often decidedly symbolic, and the children of the group take part in unison in representing some typical social situation. But in the Montessori system the children often as individuals take part in real social enterprises such as serving dinner, cleaning the room, caring for animals, making garden, etc. Although the kindergarten does not exclude such real enterprises, it does not emphasize nor generally in this country practise them. On the other hand, Miss Montessori speaks in rather a derogatory way of games and foolish stories and evidently does not see the great possibilities of imaginative and creative activity.

Doctor Montessori finds the data for the new pedagogy in anthropology and experimental psychology. But as she sees the need of fitting the child for society, she is interested not only in the biological but also in the social child. She approaches her problem from the stand-point of the

physician who has had careful pedagogic training and a valuable practical experience in educating defectives, but who still remains the observant physician skilfully diagnosing each case according to its individual peculiarities as they present themselves before her. What she is particularly interested in, therefore, might well be called pedagogic hygiene, or the development of the child along lines that are educationally healthful. These educational health lines she thinks are to be found only by observing the free, spontaneous activity of the child, as if, with Rousseau, she felt nature to be the only safe guide. Theoretically she does not recognize the difficulty of discriminating between that which is "natural" and that which is due to social influences, even in the very young; but practically she does in the way in which she would restrict the child from doing that which offends or annoys, or which tends toward rough or ill-bred acts, or that which is useless or dangerous.

Every manifestation, however, having a useful scope, she would permit; for "We cannot know the consequences of suffocating a *spontaneous action* at the time when the child is just beginning to be active: perhaps we suffocate life itself." Aside from the self-development ("auto-education") that there is in such "liberty," it furnishes valuable information to the trained observer of how best to provide for the educational needs of the child. There is a valuable idea here; for teachers often fail to grasp what their pupils are really thinking, feeling, and striving to do. They often fail because of their inability to see things from the viewpoint of the child. Hence methods which tend to bring teacher and pupil closer together in their understanding of each other are exceedingly valuable. It is also true that the "liberty" fostered in the Montessori schools, under a carefully trained teacher whose practical common sense and quick sympathies are able to turn the current of discipline in a direction which avoids strain and resistance, develops true teaching power as no mere restrictive measures can do. The child has a right to be active, to explore his environment, to develop his inner resources through creative effort, and he also needs careful training of his senses as a foundation for active and accurate learning. In these two points Doctor Montessori agrees with Froebel.

But it is only the well-trained, well-qualified teacher who, when she is dealing with a number of children at the same time, can do this without infringing somewhat on the "liberty" that Doctor Montessori has in mind.

In fact, one of the most serious difficulties to encounter in a general effort to introduce the Montessori methods would be apt to lie along the line of securing competent teachers or directresses for effective work. An ideal teacher for such methods must have a background of culture, a good working knowledge of general psychology, power to observe with scientific accuracy yet with sympathetic insight, she must know from experience the right moment to intervene with help and suggestion, she must be able to present simply and clearly all the materials and lessons, she must have such a clear idea of what "liberty" means that she can create its atmosphere in her room, she must be able to prevent the children from superficial playing with the didactic material used in their education, and she must be able to forestall disorderly habits and to foster habits of care and order. While these are exceedingly desirable qualities for teachers everywhere, they are absolutely essential to success under these new methods.

APPLICATION IN AMERICA.—Aside from the difficulty of applying the Montessori methods to the teaching of large groups at one time, and the difficulty of securing the necessary number of sufficiently qualified teachers, critics see some danger in the system of over-emphasis of the material side of the child's education at the expense of the spiritual. Madame Montessori has no place in her scheme for appealing to the imagination of the child. Training the child to social duties, to self help, and to quick practical results appeals more to her than do any of the spiritual hungers which are so manifest in the young child. Not that the spiritual nature is absolutely neglected in her educational scheme, but that it receives attention almost entirely along the line of duties to be performed rather than in spiritual communion and fellowship to be enjoyed. It seems remarkable that such a close observer of child-life should have failed to read deeply into this side of child-nature. But this, too, may be the result of the way she entered the field of education.

Doctor Holmes sums up the possibilities of applying her methods in America under the following statements: Our people are not as homogeneous as are the people of Italy. Temperamentally we are less responsive to sense impressions, but we have more imagination and a greater fund of nervous energy with less docility. We have more initiative and more power of invention. Our children would be apt to be freer and under less restraint in the handling of the material. They would be apt to take some of the steps provided by the didactic material more quickly and, if left to themselves, to omit some of the steps altogether. But this material should make a strong appeal to interest and should develop attention and concentration because of the spontaneous nature of the method used with it and the greater freedom of choice permitted by the method—each child being freely permitted to choose the material he desires to work with. Our shorter hours and longer vacations would not be, however, so favorable to the best workings of the system. We also have already achieved many of the things for which Doctor Montessori has been striving in Italy. “Personally,” Doctor Holmes says, “I should like to see the kindergarten and first primary grade as they now are reconstructed according to her principles, using her materials, but keeping the morning circle and the story, many of the songs and games, and some of the occupations, especially the clay.”

Continuation Schools.

Wisconsin's new school law (referred to in last year's "Annals") embodies a well-defined effort to train all the boys and girls of the State into skill in at least one occupation. The proper working out of this law should do away with the unskilled labor which is so unprofitable to the individual and such a poor thing for the State. The law requires the industrial training of all between the ages of 14 and 16 in "continuation schools" to be supported partly by local taxation and partly by State aid. A State Board of Industrial Education has been provided, and in every town of 5000 or more there must be provision made for industrial education. In smaller places there may be a local

board of industrial education, composed of the superintendent of schools and 4 members appointed by the school board of the place, 2 of these members to be employers and 2 of them skilled laborers, to "maintain industrial, continuation, and evening schools." The petition of 25 persons qualified to attend is all that is necessary to secure the establishment of any special type of continuation work in these schools.

The German and Swiss laws are followed in requiring every employer of minors between 14 and 16 years of age to allow them 5 of the 48 hours of labor each week for instruction, and this instruction must be carried on for at least 6 months in the year. This time must be allowed without any decrease in wages. The course of study "must include English, citizenship, sanitation, hygiene, and the use of safety devices, and such other branches as the State superintendent and the State Board of Industrial Education shall approve." Valuable provisions are also made for apprentices under 18 whose work may not exceed 55 hours a week, 5 hours of which must be allowed the apprentice for instruction in the local industrial school or in a manner approved by the local or State boards of industrial education. Besides, the indenture must contain an agreement that the employer will teach the apprentice the whole trade as it is carried on in the shop where he is indentured, and the agreement must also specify the amount of time to be spent at each process and at each machine.

THE TESTING OF THE SHOP.—There are two important and perfectly natural results of the form of continuation school work in which students spend part of their time in the shop doing real work under actual economic conditions. These are made clear in a recent report of the workings of this coöperative plan as it is carried on by the University of Cincinnati. Dean Schneider, who was a pioneer in this work in America, shows in this report that not only does the shop quickly detect the weak points in the student's character and development, but it also shows up many of the defects in the teaching he is receiving. At least this is true in so far as it has a bearing upon the practical testing which he will receive when he takes his place in the field of productive labor. "We learned the first year," he says,

“and have had it verified each year since, that the shop will spot a yellow streak in a man before the university even suspects it.

“An attempt to sneak through spoiled work is never a great success there. We, at the college end, soon find our work under scrutiny and criticism from a source that does not hesitate to scrutinize and criticise. We are brought face to face with the failure of a university department as we never are in our four-year courses. A student, let us say, has finished successfully his work in physics. Some day he does a fool thing in the shop which indicates that he knows very little about the subject. When you confront him with the fool thing, and with the fact that he should have known better because he had been taught the theory governing it, you find his grasp upon the theory to be very feeble.” In other words, the shop affords a testing of the teaching as well as of the taught, and no doubt will, as the coöperative plan becomes more common, have an important bearing both upon courses of study and upon the thoroughness with which they are taught.

The High School.

DEVELOPMENT OF PUBLIC HIGH SCHOOLS.—The following statements, from the Bureau of Education at Washington, indicate the encouraging growth of public high-school education: “The private secondary schools show a healthy increase—an increase of 25 per cent in attendance since 1900; but the public high schools have actually doubled their attendance in the same period. In 1890, 40 out of every hundred high schools were private—to-day there are only 16 private secondary schools for every 84 public high schools. In 1890, 32 per cent of the pupils were in private high schools and 68 per cent in public; to-day only 12 per cent of the pupils are in private secondary schools. The people have shown their appreciation of their high school in the most direct way possible—by supporting it unflinchingly and generously. They have faith enough in it to pay high sums of money year after year that the high school may do greater and greater work. Industry, technical ability, home-making, together with the essentials of a cultural

education, are being taught our boys and girls in the splendid high schools of to-day on a scale never dreamed of in the civic life of any nation before our time."

The faith of the people in the work being done in our public high schools should of itself be a sufficient answer to the occasional hostile criticism that is heard. Secondary education at public expense is winning its way because the people realize what it has meant in the evolution of higher standards of American citizenship.

THE OPPORTUNITY OF THE SMALL HIGH SCHOOL.—Under this title the Commissioner of Education for Massachusetts, Doctor David Snedden, has indicated, in the *School Review* for February, what he believes to be the proper lines of work for the smaller high schools of the country. As in Massachusetts 40 per cent of the public high schools have fewer than 4 teachers and, taking the country as a whole, the greater number have only 1 or 2 teachers, the nature of the work attempted by such a small faculty is a matter of grave importance. Manifestly such high schools should not attempt the full curriculum possible in larger schools, and they must always decide between instructing in a few subjects, with the possibility of doing good work in them, or attempting more with almost absolute certainty of dealing more superficially with each thing attempted.

Doctor Snedden points out that these small high schools usually have a few pupils who are preparing for college, and there is a strong temptation on the part of the school to place most of the emphasis of the work upon them, because their admittance to college is a creditable thing which the public of the community can easily grasp and appreciate. None of the other standards and ideals of secondary education can have much weight with the small high school, because "Its teachers are almost of sheer necessity followers, not originators;" and they have their hands full in seeking to meet the very specifically formulated requirements imposed by the colleges. Thus restricted in its scope, it is undoubtedly true that the small high school has largely failed to serve, as effectively as is ideally possible, community needs as represented in the large majority of its pupils for whom a higher education is impossible. While

he admits that such subjects as Latin, algebra, ancient history, physics and the like, play an important part as the tools of a higher education, presented as a means of college preparation they can have less value for those not going to college than other subjects that should be introduced for their benefit. The conviction is slowly spreading, he says, that the traditional program of the small high school is, for those who do not reach college, a relatively futile affair when viewed from the stand-point of any one of the three possible aims of secondary education,—namely, vocational efficiency, civic capacity, and personal culture.

Doctor Snedden says he has a growing conviction that the following should characterize the small high school:

1. It must remain primarily a school of liberal, as contrasted with vocational, education; simply because effective vocational education in any field is practicable only under specially prepared teachers, special equipment, and specially arranged conditions.

2. On the other hand, every small high school should maintain work in one or more lines of practical arts, but avowedly with reference to the possible contributions of the subject to the valid ends of liberal or general education. Manual training, household arts, agriculture, and such commercial studies as typewriting and elementary book-keeping, can be made valuable factors in this liberal or general education scheme. They will also make valuable contributions to vocational ideals; but neither the pupil nor the community should expect, from the few hours per week that can be devoted to these subjects in these small schools, that genuine vocational skill or capacity can be developed in them.

3. While the necessary and valuable function of preparing the few for college must receive recognition, these schools must remember that, for the great majority of their pupils, preparation for the cultural and civic life of the community is supremely important. Nor are the two aims to be fulfilled by the same means and methods; for the college student must learn to use tools of knowledge that the others will not need.

4. Especially should such schools care for the needs of the large number of boys and girls who will leave at or

before 16. As the vast majority of these will participate in vocational occupations, the practical arts mentioned above can be made to serve the twofold purpose of helping them to choose a calling and of giving them some practical knowledge of it.

5. These schools, as indeed larger high schools, should bear in mind that in all liberal education there are two methods of approaching almost every subject. The purpose of one method is to secure appreciation; the purpose of the other to develop power. "The writer believes that in the introductory stages, at least, of literature, general science, social science, and practical arts, when these subjects are designed for students likely to leave school early, the controlling end should be deep and varied appreciation; whereas in vocational subjects, in English expression, and in the later stages of science and mathematics, the controlling purpose should be power in application or execution."

6. With respect to the means and methods of stimulating interest and appreciation, the small high school may have a relatively wide field. But in mastery of a foreign language, systematic study of literary selections, laboratory exercise in science work, and drill in the arts of vernacular expression, where specialization in teaching power is required, it must restrict its field to what it can do well.

Doctor Snedden then suggests the following as a minimum curriculum for such schools, to meet the ends enumerated for the two classes of students apt to be found in them:

FIRST AND SECOND YEARS.

Non-College Preparatory

1. English literature
2. English language
3. General science
4. Social science
5. Practical arts

College Preparatory

6. English literature
7. English language
8. Selected from 3-5
9. Mathematics
10. Foreign language

THIRD AND FOURTH YEARS.

11. (Selected from
12. college
13. preparatory
14. courses)
15. Practical arts

16. English literature
17. English language
18. Science
19. Foreign language
20. History

The first two years' work is organized primarily to care for those who will leave at about 16, but with the assumption that some of the work will also prove valuable for those preparing for college. This permits some of this work to be combined for the two classes. On the other hand, in the last two years prominence is given to the college-preparatory work.

1. The two-year course in English literature should be largely for the purpose of establishing good taste and standards of judgment in general reading. Doctor Snedden believes, however, that there should be no effort made to correlate language study and literature, as each requires a different pedagogic method. Especially in English designed solely "for life" literature and the arts of expression should receive independent consideration. 2. While literature should be taught almost solely for appreciation, language study should be taught mainly for power in the arts of expression. 3. The general science should consist of large units or topics from several or all of the sciences. It should be presented from the stand-point of appreciation and insight, rather than for power to use. These science topics should in the main be for the purpose of interpreting the significant phases of the material environment of the pupils. 4. By social science is here meant topics that will help to an appreciative understanding of the social environment which is essential not only to citizenship but to effective living. 5. Although the small high school cannot be a vocational school in the sense of preparing for a vocation, it can bring its pupils into contact with the practical arts by which men and women must live. Contact with these arts, as part of such great realities of life as the earth, the sky, the social life around them, and participation in them on the amateur's level, are the essential basal elements of the method to be pursued. Four distinct departments are usually recognized in these practical arts,—agriculture, the industries, the commercial occupations, and the household arts; and it is manifest that the small high school can carry but one or two of them.

Even with these more restricted efforts of the small high school, it is manifest that the teachers will have to carry a heavy burden. "But on what other terms can we

obtain an effective secondary education for the sparsely settled community? There are various needs to be met, of which preparation of a few students for college is not the most important." And the small high school will do better work by learning these needs and how to meet them than by following the traditional courses of the past.

COLLEGE ENTRANCE REQUIREMENTS.—The committee of the Secondary Department of the N. E. A. that has had under consideration the articulation of the high school and the college has made a report which, supplemented by the words of its chairman, Clarence D. Kingsley, of Brooklyn, emphasizes the following:

1. That the present college entrance requirements were devised at a time when there was practically no demand in the high school for the applied arts and sciences. Consequently, "preparation for college" was defined in terms of foreign languages, pure mathematics, pure science, and history. But many high schools have heeded the changed demands of the times and already have well-developed courses in mechanic arts, commerce, household economics, and agriculture. Unless we are willing to assume the responsibility of dividing pupils at the beginning of their high-school course into those who are to go to college and those who are not, by giving each class a separate line of work, we are forced into the position of urging that the college recognize these new subjects that have been demanded by the public. With the coöperation of the college, these vocational subjects can be made to combine in an interesting way the cultural and vocational and, at the same time, to contribute to the mental power, the social outlook, and the moral purpose of the student.

2. That the field and function of the high school embraces: (a) For every student instruction carefully designed to return him to society prepared to be an intelligent, able-bodied, and progressive citizen; (b) The opportunity for the student to test his capacity in a fairly large number of relatively diverse kinds of work, as this is the time for trying out his different powers and for forming his life purpose; (c) The duty of making specific contributions to the efficiency of the individual along various broad lines, as well as the laying of the above broad foundations of

good citizenship and of helping to a wise choice of a vocation. This contribution should be made by blending rather than by keeping separate the cultural and the vocational, "for only then does the liberal receive its social significance and importance"; (d) The recognition as rational elements in the education of all boys and girls, and especially of those who have not yet chosen their vocation, of mechanic arts, agriculture, or household science; (e) The idea of the president of the Carnegie Foundation that the students taking the newer subjects should not be required to carry all the older subjects, also that it is the duty of the college to adjust itself to the high school thus broadened; (f) The idea that each high school should reflect in a real sense the major industries of the community which supports it.

3. The Committee recommends that: (a) Fifteen units be required for admission to college, each unit representing "a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work." This definition of a unit assumes a school year of from 36 to 40 weeks, that each period is from 40 to 60 minutes in length, and that the study is pursued for 4 or 5 periods per week; (b) That pupils should not be admitted with conditions—the committee disapproves of the practice of admitting students to college weighed down with conditions, on the ground that it is injurious to the student, to the high school from which he comes, and to the college to which he goes; (c) That as a qualification for admission 2 majors of 3 units each, and 1 minor of 2 units be required—"irrespective of the possibility that the student may go to a higher institution, it is desirable for him to do in the high school a certain amount of work of an advanced character"; (d) That one of the required majors should be English. "Every high-school course should include at least three units of English, one unit of social science (including history), and one unit of natural science." The requirements in mathematics and in foreign languages should not exceed 2 units of mathematics and 2 units of one language other than English. However, for the engineering course 3 units in mathematics is a reasonable requirement, and for a literary or classical course 3 units in a foreign language; (e) That 11 of the 15 units must be for academic work, the

other 4 units being left as a margin for additional academic work "or for mechanic arts, household science, commercial work, and any other kind of work that the best interests of the student appear to require." The only limitations that should be placed upon the use of these 4 marginal units are "that the instruction should be given by competent teachers, with suitable equipment in classes not too large, and that the student's work should be of a satisfactory grade."

TEACHING PUPILS HOW TO STUDY.—A great deal was written during the year concerning this problem, which often so seriously affects the prospects of the pupil at the beginning of his high-school course. Attention was focussed on the question during the year by the frequent claims, made by both teachers and by laymen, that high-school pupils do not know how to study in a profitable way. The complaint has also come from parents that high-school teachers do not "teach," but spend most of their time "hearing lessons," and that therefore most of the real teaching must be done at home. While it is true that some teachers assume that, when pupils are not working beyond their depth, the bright ones will have little difficulty in preparing their lessons and the duller ones only need to give more time in order to grasp them, there are also teachers who recognize the positive need of giving pupils suggestions, and, if need be, supervised practice, in regard to how to study their lessons. The general plan pursued by Professor Ernst R. Breslich, of the high school connected with the University of Chicago, and which is given in the *School Review* for October, is submitted as one affording good results.

Suspecting that, especially for beginners, the difficulties encountered are greater than is usually appreciated, Professor Breslich tried the experiment of seeing what could be accomplished in the way of preparing a home lesson in the class-room during a period of 15 minutes. "The experiment showed at once that the pupils did not appreciate the value of limited time, for all were slow in beginning work. It took some of them the whole 15 minutes to go through the technic of getting started. Several evidently were not in the habit of working alone, for they looked

about helplessly and simply imitated the others." Visits to other classes verified his suspicion "that in most high-school classes there is much time spent in hearing lessons and little attempt to teach pupils how to study. Difficulties which should be mastered by the student himself were explained away by the teacher. The teacher, not the pupil, decided whether a result was right or wrong." In this way the pupil's own ability was not developed, and the feeling of responsibility for mastery of the subject was decreased instead of developed. As many pupils enter the high school with little or no training in preparing difficult work, one of the aims of the instructors should be "to make the pupil able to work efficiently without help, to teach him how to use his mind and his books. The class system of instruction commonly in use is not efficient in developing this ability."

In trying out the best method of rendering effective assistance to students in their methods of study, in addition to suggestions and discussions on the subject made in the regular class-room work, Professor Breslich at first appointed an hour every day in which a class-room would be open to students who wished to make up back work or who had difficulty with assigned home work. "No promise was made that help would be given. They were simply to come there with a definite piece of work and to begin work as soon as they arrived. The students made very good use of this opportunity. They found that they usually received some further suggestions if those made in the class-room proved not to be sufficient." This study hour was conducted as follows: The teacher passed from desk to desk, watched the pupils at work, and made suggestions, but rarely answered a question directly. The student usually was led to answer his own question. Only after it had become evident that the pupil had made a serious attempt, were further suggestions given. Mistakes were always made the basis for a little further discussion.

But it was soon found that those who came to this "study hour" were not always those who needed the most individual attention. Hence the plan was adopted of introducing supervised study in the class-room, by using a combined study and recitation plan for certain work which

was thus done entirely in school instead of at home. The section with which this was done did fully as well, in Professor Breslich's judgment, as the section taking the home work. Especially was this true of the slower pupils and those who had missed time through sickness. But, most important of all, the teacher was able, by following a method similar to that employed in the "study hour," to give suggestions to slow pupils at the point of need, to furnish encouragement to those lacking confidence and much valuable help to all in how to prepare work in good form, with clear and permanent grasp, and with economy of time and effort. Bright pupils, who in this way get most of their home work sufficiently well prepared in the classroom, are expected to do valuable supplementary work at home.

Rural Schools.

GENERAL.—The lack of three fundamental things is preventing our rural schools from being what they should be. When these are supplied, all else will fall into line and these schools will become all that they should be. First, they must have more ample funds. As taxable values in nearly all rural districts bear a too low ratio to the amount needed to provide sufficient school funds without a prohibitive tax rate, the State must make up the deficiency. We are rapidly approaching the position where we will see that it not only promotes the general welfare of a State to equalize as nearly as possible the educational opportunities of its children, but also that it has a distinct duty in this direction. While equality in the State can never mean equality of possessions and equality of ability to enjoy and to benefit, the State must, as far as it is able to do so, provide equality of opportunity. And every citizen of the State is in duty bound to provide his quota of the extra tax needed to bring about this equality which is the first great step toward the efficiency of the State.

Second, they lack the kind of education that would best meet their needs. This fact is now receiving more general recognition, and courses of study for the rural schools are providing for other interests besides the merely academic. The older systems provided the academic training

which held out as ideals the college and the professional school; the newer are emphasizing the value and the interest of the farm life. The former drew the young people away from the farm and made the town and the city the centres of attraction. The latter endeavors to divulge and promote the attractiveness of the rural life.

Third, there is a sad lack of interest on the part of the patrons of the rural schools. This, no doubt, is largely due to the defective courses of study and to the poverty of funds which have prevented these schools from doing much in an educational way. But there has been a general lack of effective school organization and of well-organized effort to arouse interest in these rural places. Experience has abundantly shown that, with well-planned supervision and an effortful interest of educators and the friends of education, patrons of rural schools can be made as intelligently and sympathetically active in the interests of their children as parents anywhere can be made.

THE IDEAL RURAL SCHOOL.—Under the title of "The Country School of To-morrow," Frederick T. Gates, chairman of the General Education Board, has drawn, in *The World's Work* for August, a strong picture of rural schools and conditions as they exist in most places. And he has added valuable suggestions for making them what they should be and also given an inspiring vision of all that they might be. In many places in the South, and in some places in the North, the school-houses are small, one-roomed structures, "weather-blackened, window-smashed, often with wrecked entrance steps and lockless door; for chimney, a length of stove-pipe thrust through side or back; for furniture, a perpendicular combination of bench and desk, well fitted to be an engine of torture." Improvement of the ground has rarely been made, the original picturesqueness of nature often even having been defaced and belittered. "From November onward, for three to seven months, somewhat less than one-half of the school population of the district may be found there, usually taught by a young girl, often a last year's older pupil of this or a neighboring school. Enter, and you shall see her painfully teaching her class to read sentences of English, quite likely as one would pronounce the successive words in the perpendicular columns of a spelling book." In the South there are

"well-nigh or quite two million" of children between the ages of 6 and 16 who are suffering from hookworm disease, "weighed down, arrested, and stunted physically and mentally by this disease, many thousands each year finding relief from it in death. This number must be multiplied by the indirect toll of increased fatality in other diseases, traceable solely to this complication." In the more neglected sections there is evidence everywhere of a worn-out soil, inefficient cultivation, scanty crops, abandoned fields overgrown with bushes, deeply washed and gullied hillsides, rotten orchards, sprawling fences, tumble-down houses, with unkempt and littered surroundings. Such are the pictures too often found among our neglected rural folk—pictures that should make an irresistible appeal to all friends of education everywhere.

The remedy, as Mr. Gates sees it, lies not in endeavoring "to make these people or any of their children into philosophers or men of learning or science," but to give them the "lowly, needful things that promise well for rural life." Being mindful in the meantime of creating conditions and an atmosphere that will help and not blight any genius that may be born into these homes, "we are to try to make that life, just where it is, healthful, intelligent, efficient, to fill it with thought and purpose, and with a gracious social culture not without its joys." To accomplish this we shall need a group of school buildings located in convenient central spots to which distant pupils shall be conveyed daily. These buildings must be placed in ample grounds of many acres. The school is to provide in various ways for both old and young and is to be open the entire year. Every important industry of the district is to be represented in the curriculum, and every kitchen, barn, farm, dairy, and shop of its district is to be a laboratory for testing out the things learned in the school. All the vegetable and animal life of the district and all its physical phenomena are to be its natural museum and a part of its scientific equipment.

The first lesson to be learned is the great lesson of health. Local causes of ill health are to be ferreted out, and experts from the universities, the agricultural colleges, the schools of forestry, and the medical and veterinary schools, are to lecture and demonstrate how to care for human,

animal, and plant health and vigor. As a matter of great importance for health and vigor, a study of foods and how to prepare them is to be provided for. Necessary problems of sanitation and shelter are to receive due consideration and model kitchens and homes are to be the rule instead of the exception. These homes are not only to be made comfortable and convenient, but they are also to be tasteful and even beautiful, though it may be only with the beauty of simplicity and well-selected surroundings. The matter of clothing shall not be neglected, so that it may be well chosen and hygienic in its selection, make-up, and cleanliness.

These things for the foundation. Then shall come the instruction in farming that forms the backbone of rural success. Farm demonstrators, working in conjunction with the school, shall show the possibilities of the soil, impart helpful knowledge in the selection of seed and in the judging of crops and the live stock of the farm, as well as in how to utilize both to the greatest advantage. Corn clubs are to be established to arouse the ambition of the boys, and canning clubs to stimulate the interest of the girls. Scientific farming is not only to be taught but also to be conducted as a business.

It is difficult to predict just what the ideal rural school buildings of the future shall be like; but they shall be large enough and have pupils enough to provide in the best possible way for the proper instruction of all the needed interests of the entire extended district served by them. The child shall inherit its God-given rights. "We shall seize the restless activities of his body and mind and, instead of repressing them, we shall stimulate those activities as the natural forces of growth in action. We will harness the natural activities of the child to his natural aspirations, and guide and help him in their realization." Especially shall we provide for proper recreations both for the child and the adult. Both shall be taught ways of relief, through interesting recreations, from the strain and tedium of the daily task. Beauty shall also be taught and in the form of music and dancing shall help to develop grace and a more perfect recognition and enjoyment of the things which are above and beyond mere material gain.

Such is the dream. "But the cost? The cost in money will be limited; the gain in money will be limitless." Average gains of from \$10 to \$30 per acre have been made in the South by proper methods of soil cultivation. "The farmers themselves, therefore, could well afford the expense." But the railroads and the merchants could also well afford to help, because of the increased prosperity that would come from the investment. The State could also well afford to assist in paying the bill, because, after all, the rural districts are in more senses than one the supply-house of the nation.

GRADED UNION RURAL SCHOOLS.—*The World's Work* for October gives a brief account of a simple but effective method for securing the benefits of grading in rural schools. It is the method followed by Superintendent I. J. Scott, of Story County, Ia. Instead of having children of all grades taught in every school-house, he divides the pupils of three contiguous districts into 3 groups, composed respectively of the "primary classes" (grades 1 to 3), the "intermediate classes" (grades 4 to 6), and the "advanced classes" (grades 7 to 9). The primary classes are assigned to one school-house, the intermediate to another, and the advanced to the third. The pupils walk to the school to which they are assigned if it is near enough, but, if not, they are transported in wagons built especially for this purpose and which are provided by the united districts.

The plan has resulted in a great lowering of the number of classes necessary for the teacher to hear recite each day—in these cases from 31 to 14—with a corresponding average increase in the time that may be devoted to each recitation and to assisting individual pupils. The teachers are also able to give more thorough preparation to their work and to teach with far more initiative and spontaneity. The report states that, as a result of the pupils receiving more individual attention, they get more enjoyment and understanding from their lessons, and that under the plan the average attendance of the three schools has risen from 36 to 45, with an additional cost of only \$3.52 per pupil for the entire year's work, including transportation, better work, and all.

It is interesting to note that, as a partial solution of the rural social problem, "On one Friday afternoon of every month the wagon, after taking the children home, brings their mothers back to the school-house for a neighborhood discussion of the schools, with results in increased interest in the school work and in strengthened social relations that have added much to the community life." An effort is also made to make the school library of each building of great value and interest to the pupils and their parents.

RURAL HIGH SCHOOLS.—The State of Wisconsin is now well on its way in the establishment of country high schools where agriculture and domestic economy are taught to pupils who have completed work equivalent to the first eight grades of the public schools. These schools are co-educational and have two-year courses in which, in addition to English, history, and economics, are taught agriculture, horticulture, animal and dairy husbandry, agricultural engineering, and domestic science. One of the most complete of these schools is the Winnebago County School which has a 30-room building with recitation-rooms, laboratories, blacksmith and carpenter shops, a plant-house, kitchen, sewing-rooms, and, what is not always found even in some cities, an assembly hall and a library. The school farm contains 11 acres and has a stable and pavilions for the display and judging of stock.

Five of these rural high schools have already been established and two others have been authorized. The cost of the buildings of those already established has been from \$20,000 to \$60,000 and the expense of maintenance from \$6000 to \$14,000 per year. In addition to the work done with the students, they assist their patrons in making plans for farm buildings and home-made appliances, in testing their dairy products, in inspecting and selecting their live stock, in analyzing soils and testing seeds for planting, in problems of drainage and rotation of crops, and the housewives are assisted in problems of cooking, dress, and home decoration. And one great gain is already noticeable—the graduates of these schools are remaining in the country as farmers or farmers' wives. The good work is spreading, and already Minnesota, Michigan, Arkansas, Oklahoma, Georgia, Alabama, North Carolina, California, and New

York have established rural schools on a more or less similiar plan.

There are, however, three things that it is well to keep in mind in all such endeavors. The first is that no amount of need or demand for the more practical training should be permitted entirely to eclipse the value and satisfaction that there are in the refinements and broader outlook on life afforded by the culture side of an education. The second is the importance of making a careful survey of the region to be served by such a school, with a view of making the practical side of the education suit as nearly as possible its greatest needs. And the third is the supreme importance of securing well-trained, efficient instructors for these schools. As each of these schools becomes a natural centre of influence and inspiration, as well as of instruction, the more competent the corps of its instructors the greater the return for the investment in the school by the taxpayers of the county and the State. In Wisconsin the State gives \$4000 a year to each of such schools, and the county tax provides the remainder.

THE WAKE COUNTY PLAN.—A special bulletin issued by the Federal Bureau of Education shows that the movement begun in Wake County, North Carolina, to teach farming to public-school pupils by employing them on farms near the school-houses is spreading. Some eleven tracts, cultivated in the county by this method, yielded a net revenue of \$1200 besides giving instruction in practical farming by modern methods to the pupils and their parents. This result should appeal to many communities in which land is plentiful and taxes are not easily raised.

By the Wake County method each farm is devoted to one crop which is raised under the supervision of the best farmer in the neighborhood. The work has a valuable social aspect, for it brings together young persons and adults under less formal and more enjoyable conditions than exist in the school-rooms. It combines theory with practice and can easily be made to supplement text-book instruction on subjects related to country life. A system of such farms and instruction, perhaps under State direction, could be made to do much toward extending scientific agriculture.

PART III

CHAPTER V

DEVELOPMENTS DIRECTLY AFFECTING THE HIGHER INSTITUTIONS OF LEARNING.

Tests of College Efficiency.

In an address delivered before the Harvard Teachers' Association, the Secretary of the Carnegie Foundation, Mr. Clyde Furst, reviewed some of the educational standards and tests that the Foundation had considered it advisable to apply in their detailed study of the institutions eligible to share in the benefits of their pension fund. This detailed study revealed the importance of and the great variations in such things as: (1) corporate organization—the test of corporate efficiency leading them to question boards of trustees with as few as 5 members or with as many as 80, both these extremes actually existing among the number of institutions studied; (2) the proportion of the total income spent for instruction, with a particularly great variation in the average salaries paid to the various teachers in the instructing staff in different institutions; (3) the adequacy of the reporting and recording systems in use, there being no standard forms for such vital things as finance and attendance so that comparisons of cost are difficult; (4) college entrance requirements and their enforcement—this being a very definite test of college efficiency, emphasis being laid by the Foundation on the use of an “entrance unit” which should represent a definite amount of work in the secondary school; (5) the character and the success of the examinations at entrance and in course, with emphasis on examinations as a test of ability rather than of mere accomplishment; (6) the character and use made of the records kept of the students and their work—judgment

marks concerning such things as health, vitality, temperament, initiative, progress, promise, sincerity and genuineness, judgment and prudence, methods of work, causes of success or failure, prospects, expression especially in English, refinement, cultivation, social qualities, and executive ability; (7) the standards and tests of efficiency of the teaching, with the various incentives to student scholarship; (8) how fully the curriculum meets the best purposes of a college, or whether it merely follows tradition and imitation; (9) the preparation given for post-graduate or advanced work; (10) the excellence of the preparation given for entrance upon professional or business life; (11) the test furnished by the success of alumni in actual life; and (12) the evidences of efficiency of management (see *Current Ed. Activities*, p. 208).

Mr. Furst also referred to the investigations made by the Oberlin College committee in 1909 and to their valuable report on tests of college efficiency. But he said, "Our present need is not for more tests, but for a fuller and more frequent application of them. The prospective reward is suggested by Oberlin's record of the results of three years: 'A revised curriculum, a higher standard for graduation, improved methods of choosing studies and of registration, provision for closer supervision of student scholarship, and certain advances in the development and adjustment of administrative machinery—a broadening of knowledge and a keener appreciation of college problems by the whole membership of the faculty.'" "Too many of our institutions of learning," he said, "still represent individual, local, and group ideals and prejudices. Individual and local ambitions retard educational progress by the indefinite multiplication of unnecessary institutions. The State scrutiny that is given to all institutions in New York, and the coöperation of institutions that has been shown in the movement for extension teaching in Massachusetts, mark the better way." This communal test still awaits a broader social knowledge and a more active social conscience. "Such broader knowledge and sympathy are beginning to prevail in many places, and the promise is as bright as the need is large for a national extension of a truly social view of education."

College Morals.

So much has recently been said about immorality and irreligion among our college students that what Doctor Emil C. Wilm, of Harvard, says on the subject in the *Educational Review* for March is particularly timely. In this article Doctor Wilm calls attention to such facts as that: (a) The college student, because he is entirely freed from home restraints, is in an entirely different moral position from that of the pupil in the primary and secondary school; (b) too often whatever religious associations the student may have had before going to college are apt to be interfered with or even entirely severed in the new environment of the college; (c) the larger colleges are apt to be located in cities or towns of sufficient size to offer serious distracting and tempting influences; (d) the student's moral and religious life are sometimes endangered by the studies pursued, or rather by the instructors not entering into the intellectual difficulties and individual questionings in the mind of their pupils; (e) the great numbers and the floating character of the college population make for a certain anonymousness and isolation that are not conducive to moral development; (f) the popularity of college education and the great increase of wealth among the people are both working toward bringing into the college a less earnest type of pupil, and they also tend toward clannishness and extravagance in a way formerly unknown.

Doctor Wilm does not see as much danger in the alleged "idleness" of college students as he does in the dissipation of energy fostered by the great number of athletic, social, and other distracting influences now so prevalent in college society. The presence of these distracting and dangerous influences tends toward certain moral evils that can briefly be summarized as: (1) A weakening of moral principle through intellectual confusion; (2) positive immorality, like drunkenness, gambling, licentiousness; (3) enfeeblement of the will, due to a comparatively aimless life and the scattering of safeguarding intellectual and moral agencies.

To remedy these tendencies and to minimize these dangers certain things should be done:

First, the gulf existing between students and the teaching staff in our larger institutions must in some way be bridged. President David Starr Jordan says, "In the American university it is all-important that the teachers should know the students, individually and collectively, their hopes, their aspirations, and their achievements." The various plans being introduced to meet these needs, such as reducing the size of classes, the employment of additional instructors, the preceptorial plan, etc., will not accomplish this result unless the people chosen to cover the need are men of scholarship, moral strength, and genuine teaching power. On this point President Hyde has said, "The instant an institution increases the proportion of poorly paid, inexperienced instructors to well paid, experienced professors, it has to face the law of diminished efficiency." With an efficient teaching force that evidences its friendly interest in the students and their individual affairs, with regular hours when it is known that students will be welcomed by the various teachers, with a wise grouping of the students in their work and with ample provision for the care of each group and interest, and with strong instruction on points of honor and conduct, students and faculty can be brought into the desired intimate association.

Second, measures must be taken to "stamp out, by legal measures and otherwise, such breeding-places of immorality as gambling-dens, saloons, houses of ill-fame, and other disreputable places to which students may have access." The college located in a small town obviously has an advantage in this respect over the one in a large city. But in either case this is an extremely important matter that does not receive the attention it deserves.

Third, too much reliance must not be placed upon "the student honor system." "The extravagant confidence in the student honor system in many quarters appears to be due to the tacit assumption that you can increase the total amount of honor present in the student body by systematizing it." Doctor Wilm maintains that, without specific

moral instruction to modify their native moral ideas, students' hatred of priggishness and their ideas of mutual loyalty will prove stronger than their ideals of class-room honesty, sobriety, etc., which are often extremely feeble and hazy.

Fourth, the problem of the dissipation of the student's time and energy is a serious one and one that is not easily solved. In many places extra-academic activities have come to monopolize so much of the student's time and thought that studies occupy a very subordinate place, and yet no one thinks seriously of eliminating these socializing activities and tendencies from student life. Some are endeavoring to get at the problem by limiting student functions to certain days of the week; others, by regulation through lists approved by a joint committee of the students and faculty. But we must strike deeper than this. The lecture method of instruction and the elective system have fostered neglect of serious work so that in the case of many students, especially in institutions where social and artificial motives for study rather than utilitarian and practical ones prevail, the amount of study is known to be practically a negligible quantity. President Lowell has recently advanced the idea of going back to the days of intellectual competition and rivalry in college, with a view of increasing interest in study, citing as a reason for this that "By a free use of competition, college athletics have beaten scholarship out of sight in the estimation of the community at large, and in the regard of the college student-bodies." To overcome the difficulty of establishing a fair comparison for such competition, more uniform systems of marking than now prevail would have to be established and all examinations would have to come under the general control of the same special examining committee. President Lowell has already suggested that to establish and maintain a better standard of work in the college a final examination, similar to the examination for the degree of doctor of philosophy, should be given on each subject of the course.

Fifth, "Aside from positive immorality and the disintegration of character due to a comparatively aimless life, the weakening of moral principle due to intellectual confusion is, perhaps, the most serious source of moral and

religious deterioration in college life." This is an age of free investigation and criticism, and we shall have to rely upon the college teaching force to avoid setting their students adrift from their moral and religious moorings. The valuable work of the higher institutions of learning in searching out the truth and in reorganizing our thought and ideals must not be restricted. But the destructive impulse is both contagious and strong, and an institution should refuse to employ a man who shows a naturally unsympathetic temperament and a lack of moral earnestness.

Sixth, there are various forms of specific religious and moral influence which the college should not neglect. Such are devotional opening exercises, regular church services, vesper services, special lectures, departments for religious instruction, etc.

Seventh, above all, the influence of the president of the college along moral and religious lines should be fearless, direct, positive, and sympathetic. With his influence and that of his faculty well organized, the life of the student should be greatly strengthened and enlarged by the college, and all moral and religious danger reduced to a plane below that of the outside world. For, as President Hyde has forcefully said: "For combining sound scholarship with solid character; for making men both intellectually and spiritually free; for uniting the pursuit of truth with reverence for duty," the college has a mission which no change of educational conditions can take away.

Weaknesses in American Universities.

Few persons have followed with keener insight, more scholarly care, and more sympathetic interest the development in American education than the veteran Commissioner of Education of New York, the late Doctor Andrew S. Draper. In an article in the March issue of *The Educational Review*, Doctor Draper gave the result of his observations of the development of the American University, dwelling particularly upon points in which he saw manifestly weak or dangerous tendencies. Although some of our higher institutions antedate the Civil War, in the main American universities as they exist to-day are the outgrowth

of the last half century. The property values and endowments represented by them during this time have grown from thousands of dollars to millions; their teachers and students, from scores and hundreds to hundreds and thousands; and their training, from exclusively cultural lines and a few professions to all the various commercial and industrial employments, to political administration, and even to many of the mere vocations of the people.

Doctor Draper does not accept the ideas advanced by those who do not believe in the higher learning or in education beyond mere training for business. He has little sympathy with the statements of the late R. T. Crane, of Chicago, who, although no doubt sincere, evidently scarcely believed in schools at all beyond the elementary grades, and who was especially bitter in his attacks on colleges and universities, notwithstanding the fact that public opinion has for years recognized the value of these higher institutions. Doctor Draper deplored the fact that Mr. Crane claimed that public opinion in this matter was of no weight with him. "Public opinion *is* of weight; wellnigh universal public opinion upon a policy that has been evolved out of the origin, the history, the intellectual and moral aspirations, and the physical struggles of a democracy of a hundred millions of human beings, is bound to make one man care." But Doctor Draper says there are certain things referred to by Mr. Crane and other critics of our higher institutions that demand consideration. And he himself regrets a tendency to compel young men and young women to go to the universities "or be in extreme peril of losing social opportunity and of waiving all likelihood of efficiency and success in business. One must go to a university to become prosperous and respectable. And we have even begun to hear the spirit whisperings of a demand that nothing shall be allowed in the entire educational system which does not settle it for boys and girls that they *shall* go to a university, regardless of conditions and attributes, and whether they will or no."

The points of weakness in our American universities that he deems deserving of special attention are:

1. "The lust for richness and bigness and social influence is a weakness in American universities." This he says

is a trait peculiar to us because our universities have grown up in connection with our democracy, our commercial prosperity, our business success, and our accumulation of wealth. While this weakness is not a sign of grossness, it is not scholarly and does not foster scholarship. We must have institutions that meet the conditions of our own life, and therefore we cannot transplant bodily everything that is good from foreign institutions. But we might well imitate their veneration for scholarship which places it high above all riches and all other ambitions. The ambition of American universities must not be merely to secure gifts, appropriations, and sumptuous buildings. Nor must it be to multiply teachers and matriculants. Mere bigness is not necessarily a weakness, but it may be made to benumb and belittle the power to struggle for knowledge and truth and it may set up the false idea of its standing for efficiency and worth.

2. "The uniform usage of the Old World has given the management of the universities into the hands of teachers." This is not true in America, where the social tendencies, the monumental gifts of wealthy donors, and the munificent support of States, has developed an autocratic power outside of the professional management which has often weakened the support of the most gifted teachers and held the most unworthy teachers in positions. "If a teacher can play the demagogue or has a friend in a meddling trustee, he is practically beyond the reach of scholarly discipline." Although Doctor Draper does not entirely endorse the European plan of exacting fees on the basis of courses, and of paying teachers in accordance with the number of students attracted by their work, instead of our plan of arbitrary annual tuition fees and fixed salaries for teachers, he sees advantages in the foreign plan because of the automatic way in which it eliminates the teacher who cannot make his instruction worth while.

3. "Our democratic university government affords opportunity for scheming, and for successful appeals to flabby sentiment by members of faculties, which are impossible in the Old World." Such scheming makes it difficult to administer in the interests of good work. And there are university teachers who are "dishonoring and degrading a

noble institution in the sacred name of 'academic freedom.'” Immature and incompetent instructors also often feel themselves perfectly qualified to advise well-established organizations, composed of men of mature judgment and experience, on questions of far-reaching importance, and they do this in a representative capacity with the reputation of their institutions back of them.

4. The teaching in the universities is not measured excepting by examinations which the instructors themselves set, hold, and rate. “The teaching in the universities is hardly supervised at all; it is a law and a judge unto itself; the law of it is very confused; the judge is in little danger of a recall; and, withal, he is very confident in his judgments of his work.” This is rendered all the more serious in its results from the fact that the colleges or departments of the university are inclined to multiply courses and subjects to meet every possible desire, thus rendering supervision and substantial work all the more difficult to compass. All of this inevitably reflects upon the student body in a lack of exactness of scholarship and of the open-mindedness and intensiveness with which real scholarship pursues the truth.

5. The universities “would make all other schools preparatory to themselves and assume to dominate the middle and lower school systems to which they are otherwise in none too close relations.” This encourages the high schools to become college-preparatory institutions and to undertake more work than they can do thoroughly. If the universities instead of basing admission requirements upon subjects and counts would base them upon the purpose and power to do their work, the high schools would be privileged to do their legitimate work, and to do it well; and the university would then receive students who could take up with intelligence and energy the higher studies which are fitted only for the more mature and broadly developed mind. This domination of the university has led it to criticise the lower schools for teaching things that are not a preparation for college. Even such a useful and necessary thing as vocational education has been denounced by university men as interfering with the classical education. This involves the fallacy “that cultural and professional learning are all that

are entitled to a full measure of support; that its (the university's) mission is to settle the destinies of boys and girls instead of aiding them to do it intelligently and freely for themselves; or that all learning, the fullest happiness, or the safest citizenship and the strength of the Republic, are all within the limitations of classical and professional culture."

6. Without criticising the good purpose of university management in America, it is still quite evident that universities show "a woful lack either of strength or of courage in dealing with the larger bodies of students and the increasing swiftness of student community life." While it may well be doubted whether there is more evil in college life than in social life in general, this is not enough. "Students have no business in universities at all if they are not intent upon going to the good rather than be half-way willing to go to the bad." University life should proclaim scholarly aspiration and moral purpose; it is morally bound to be an example of decent living and of high opinion in the educational system of which it counts itself the head. This will not interfere with manly or womanly sport nor with harmless pranks and joys and pleasures; but it will not countenance the brutal vices of drunkenness, licentiousness, gambling, nor the maltreating of property, the endangering of life and limb, or the defiance of authority.

Toward remedying these evils Doctor Draper maintains that the presidents of universities must take the initiative and, by firmness, integrity, and tact, organize, conserve, and direct the forces of administration, of public and student opinion, against the evil and in the direction of better things. "We never needed great universities more than we do now," and, if these great moulders of human sentiment and belief will but live up to their opportunities, these weaknesses may be replaced by elements of strength for the nation.

More Effective Organization.

There were several university topics that are of general interest under discussion during the conference held in connection with the inauguration of Chancellor Elmer E. Brown at the New York University. These topics centred around the general problems of a more effective organ-

ization for work of the available university forces and the relation of a university to the community in which it is located. Although some of the points may apply more particularly to the urban university, the points made are of value under other conditions. These points, as reported in *Education* for January, were presented under the following heads:

1. The systematic organization and inter-relation of problems of university administration and teaching. Doctor Paul H. Hanus urged that a more intimate and profitable relationship between the executive procedure and the actual educational procedure might be secured through the coöperative advice of a committee chosen jointly from the trustees and the teaching staff of the university. Mr. Charles W. Williams, of Oberlin College, supplemented this by saying that this coöperation should be so organized as to enlist not only the interest of the faculty but of as many as possible of all concerned in the highest usefulness of the university, whether officially connected with it or not. Any student of university problems might well secure method and continuity through the organization of groups within the faculty, of a more or less permanent sort, for the study of special pedagogical and administrative problems.

2. The problem of the unification and administration of the admission requirements of the several schools of a large university. President George S. Draper, of the Normal College of the City of New York, advocated that, in general, evidence of college graduation should be a prerequisite for admission to professional and technical schools. While he conceded that for some forms of professional or technical training such a requirement would be obviously inappropriate, in the case of law, medicine, mining, and perhaps others, the resulting benefit of the requirement would be very great. The profession of teaching, even in the elementary schools, is tending toward this standard.

3. The problem of coöperation involved when several universities or institutions of higher learning are established in the same urban community. As expressed in many addresses during the two days of the inaugural gathering, the conference was strongly in favor of substituting the principle of institutional coöperation for that of insti-

tutional competition. (In this connection Lord Rosebury's suggestion that the idea should be abandoned that each university must endeavor to meet every demand for all kinds of knowledge or training, and that each should emphasize some special thing or related things which it can do best, is of interest. (See *Annals of Ed. Progress*, p. 167.)

4. The problem of the manner in which the university may best study and meet the needs of the community in which it is established. Doctor Henry M. Leipzinger, Supervisor of Lectures for the Board of Education of New York City, said that the evident needs of the community that could be met by the university should be gathered, analyzed, and classified in a way which would best define these needs and the opportunities for their specific educational remedies. It was suggested, however, that, while administering to the community need, the university should never allow itself to be mastered by the life of the community. The function of the university is one always of uplift. The upbuilding of a social museum as an aid to concrete study, in every urban university community was strongly urged. In connection with the question of extending to the adult portion of an urban community the advantages of higher education, Doctor Leipzinger reviewed the development of the New York lecture system in its growth from single lectures on topics of general interest to the organization of courses of lectures upon given themes with from 10 to 25 lectures in each course. At the end of such courses, he said, an examination is offered, credit for which was sought from the Board of Regents of the University of the State of New York. He claimed that these courses of lectures are now of a real university character, and that, with further coöperation from the local universities, the result could be greatly enhanced in value and the influence of higher education be more widely and vitally carried to the people.

A University that Reaches the People.

The elementary school has for many years been a thoroughly democratic institution. There are few places now in which a public high-school education is not available for

all who have completed the course in the elementary school. But until within very recent years the resources of our great universities have been open only to the comparatively few whose means, leisure, and scholarship have measured up to the entrance requirements of these institutions. A great change, however, is in process in our universities. Many of them are becoming staunch exponents of the kind of democracy in educational affairs that seeks to bring the advantages of human knowledge and development to all who are willing to accept them and in a suitable form for every one to be benefited by them. One of the best illustrations of this extension of the work of a great university is the effort of the University of Wisconsin to bring a fuller life to the people of that State. Its president, Charles R. Van Hise, is a vigorous exponent of democracy in education, and is rapidly finding a "way for every man and woman in the State, who otherwise would not have an opportunity, to gain an education."

Not only is he succeeding in carrying to the people the resources of his university, but he is also placing at their service the use of the city libraries of Madison, where the university is located; he is taking to their doors the advice of the various State bureaus of labor, the bureaus of forestry and the bureaus of conservation; and he is also making available for civic betterment the knowledge of the public service and tax commissions. This work has been organized under what is known as the Extension Division of the University, which since its organization in 1907 has been in charge of Dean Louis E. Reber. It has a correspondence department, the courses of which are so graded as to be of value both to the day laborer and to the advanced graduate student, the list of studies including the whole range of university courses from the ancient languages to bacteriology and from philosophy to business and technical courses and the practical affairs of every-day life. It has extended its work into the shops of the State, where exceedingly valuable practical results have been secured among the men and boys who take up extension courses primarily to improve themselves in their special line of work. The employers are coöperating in this work by allowing time for instruction in the shops themselves during working hours,

thus affording the teacher a practical laboratory for teaching his subject and incidentally for testing his methods and materials for instruction. The time allowed by employers varies from an hour every two weeks to half a day each week; but there is a strong tendency to increase the time, because employers feel that this instruction increases the interest and value of the employee in his work. "He learns how and why, and thus becomes an intelligent being, rather than a human machine with the one thought of putting in time and drawing pay." No entrance examinations are required for the courses, but the limitations and abilities of the students are carefully considered in order to guide them into the right line of work. The time required to complete any course is determined largely by the ability and previous training of the individual and by the energy with which the course is pursued. Some finish in four months, others require as long as two years.

Another important branch of the extension work is carried on by means of the "package library" and the University bulletins. These little travelling libraries are made up of newspaper clippings, pamphlets, magazine articles, and typewritten articles. The package libraries and the bulletins present both sides of controverted questions, and introduce their readers to the methods of scientific research. In this way their readers are kept abreast of the times and are enabled to form their own conclusions on important questions that are before the public mind. There is a department of public lectures that endeavors to keep in touch with organizations that need or may be led to see the need of lecture courses and which furnishes these lectures in an economical way. There is also a department of general information and welfare. It deals with questions of social and civic betterment, and embraces in its activities such matters as vocational guidance, sanitation, health exhibits, conservation problems, and various forms of municipal reference work. There is a municipal reference bureau, which serves as a clearing-house for information on municipal subjects not only for the State but for the nation at large. A separate department has been formed recently for the social and civic centre work. The school-

house forms the "common ground" where the people meet for this work. This would seem to offer an exceptional opportunity for the school to utilize the great resources of the university in the solution of its problems, the one grave danger being that, through lack of proper organization and mutual appreciation, the work of the two great forces which lie at the two extremes of an educational system may not find a "common ground" of coöperation in the great work of human development.

The extension work of the University of Wisconsin is not free, as a fee of fifty cents is charged for each assignment or lesson, including the correction of papers and lectures by the field instructor if there be one. But in case of most employees an entire course does not cost over \$20, and it often enables them to fill more important positions and to secure gratifying increases of salary. These fees do not nearly cover the expense of the service rendered, and the State has been obliged to make liberal appropriations to carry on the work. This it is doing willingly, showing that the work is appreciated and that it is meeting with the Commonwealth's approval. An interesting article on this extension work is to be found in the *Review of Reviews* for April.

A University Exposition.

The University of Wisconsin recently held an exposition which probably did more toward bringing about a better understanding and appreciation of each other's work on the part of its various departments than any previous efforts in this direction. It also set before the public in a concrete and appreciable form some of the important work of this great university. Altogether the exposition—a miniature "world's fair of learning"—the idea of which was conceived by one of its graduate students, Mr. Carl Beck, has undoubtedly put this institution in the position of becoming an even more efficient servant of the public, great as its service in the past has been.

The exposition, as described in the *World's Work* for August, was pronounced "An enthusiastic success." Thousands of people attended and learned much of the wonders

of modern science from the undergraduates who demonstrated and explained the 55 exhibits they had prepared. In the booth of hydraulic engineers a miniature pump took water from a reservoir and forced it through pipes, metres, and mill-wheels. The structural engineering department and the railroad engineering department each had maps and plans and blue-print tracings, as well as profiles and models. In the mechanical engineering exhibit was a model of the battleship "Maine," illustrating the method by which it was raised. Materials used in roads and pavements were also on display. At the electrical engineering exhibit a complete wireless station sent messages for the crowd. Powerful microscopes revealed the otherwise unseen workings of plant and animal cells. In the medical school one might see his pulse actually draw a wavy line on a lamp-black cylinder or models illustrating the marvellous construction of the eye and ear. In the bacteriological department were cultures and plates illustrating the bacteria responsible for various diseases. A booth was devoted to zoology; another to forest products and forest preservation; others to agricultural products, from farm animals and their diseases to whole corn-stalks and sprouting seeds. Soils and fertilizer tests were exhibited, and a model farm-house, with complete modern plumbing and a power plant to run both the washing-machine and the churns, demonstrated that farming need not be all drudgery for either men or women. Hebrew, the classics, and German were represented by books, charts, and manuscripts that were explained by boys dressed in Oriental and girls dressed in German, costume. As the editor says, "Here is a hint to those colleges that lack a hold on the large public about them, to make their case so plain and so picturesque that no one can be indifferent or doubtful of their benefits."

The Study of the Classics.

There is such a strong demand for the kind of education that best fits for vocational activity that it is well, once in a while, to raise the question whether there will not be a serious loss to human development if we entirely lose the intellectual satisfactions, the temper and quality of mind,

fostered by the culture of the older civilizations. The eminent Greek scholar, Doctor Gilbert Murray, who has come to this country from Oxford University, where he is Regius Professor of Greek, to present the advantages of the study of that language, does this so admirably that some of his words on the subject are here repeated. "I am not in favor," says Doctor Murray, "of the old method of compulsory classical education. It seems to me that when formerly everybody had to take Greek and Latin the instructors did not try to give the courses any real value or to stimulate any desire for further study on the part of the student. But now that they are no longer compulsory in most institutions, the pressure of other studies upon the classics has resulted slowly but surely in a vast improvement in the methods of teaching them. More effort is now being made to make them interesting and vital, and for this improved state of affairs they are indebted to this change from compulsory to optional study.

"On the other hand, I feel confident that classical culture is a very valuable and most important part of the curriculum, and one that must not be allowed to die out, and I quite expect a reaction in favor of it; indeed, I think it should be made a broader and more humane study than heretofore—that emphasis should be laid upon the literature, history, and philosophy of Greek and Latin. I feel, for example, that the special value of a study of classical Greek is this: that one gets, in small compass, the beginnings of almost every important human activity. Really to understand Greek, one has to study not only the language—which happens to be a remarkably fine one—but also the beginnings of democracy and political theory, of astronomy, science, mathematics, the fundamentals of philosophy, and the first elements of poetry and art as they are generally understood by our Western civilization. The world has differentiated and split up in a hundred ways in modern times, while in Greek one gets all the main spiritual forces working together; so that if one begins by understanding classical Greek one has, as it were, a clue to almost every great movement of thought that has taken place since. Of course there is also a clue to the bad movements as well as to the good."

The "Amherst Idea."

The class of 1885 of Amherst College recently drew up an address to the trustees of that institution in which they advocated the abandonment of the scientific course, the abolition of the B. S. degree, and the relinquishing of all efforts to set young men forward toward particular avocations, except as liberal culture may lay the broad foundations for public leadership, and especially that their *alma mater* should lay all possible stress upon the classics. The advocacy of a complete return to the days of classic culture has since then come to be known as the "Amherst Idea."

In commenting upon it in his annual report, President Thomas, of Middlebury College, says, "The Amherst petitioners are correct in their anticipation of a smaller college as the result of the enactment of their plan. They propose to attract a few select men from a wide region. They forfeit all claim to serve a particular community, like a State, or a region of country. The proposition is most undemocratic. The great literatures of the past are of incomparable value in the training of those who have the soul for them, and under the free elective system they are exerting their enlarging influence upon as many American youths to-day as at any time in the past. But to force the entire student body of a New England college, many of whom seek its halls for geographical, or personal, or economic reasons, to submit to its discipline, and to deny them the opportunities for education according to their bent, is to ruin many a promising boy, and to remove the institution which adheres to such a policy by gradual and certain steps from the sympathy and affection of its environment. The only safe guide in the determination of policy for an educational institution is the principle of service to a community constituency. That principle does not mean that every study must serve an immediately practical end. The community needs men of breadth, of wide information, of mastery of the treasures of the past. It is the virtue of the American college that it has refused to yield to the clamor for short cuts to professions which require leaders of personal power as well as technical skill. But the goal must

not be forgotten, and that goal is not the profession of a gentleman, as President Butler once suggested, but the service of the State."

Literary Field-trips.

The University of Chicago has been conducting a series of literary visits to foreign lands with a view of studying literature on the site of its geographical and historical background. The next class is to visit the important literary districts of England and Scotland. Certain preparation for the work is required. In this case it consists of a study of the topography of the land and of the literary history of England, as well as the problems of literary technic involved in this particular field of literature. Literary field-trips have already been conducted to Greece, Rome, and Palestine.

The Rhodes Scholarships.

Mr. Cecil Rhodes, who died in 1902, left the sum of £2,000,000 to a board of trustees, with directions that they should use the income for scholarships at Oxford University, England. Each scholarship is for a term of three years, and has an annual value of £300, excepting in the case of German students where it amounts to £250 annually. His general purposes were: (1) To promote through this education in common a more perfect unity between the various parts of the British Empire; (2) to cultivate a bond of union between the nationalities represented in the scholarships. These scholars are appointed, under certain stipulated conditions, from Great Britain and its dependencies, from the United States (2 from each State), and 15 from Germany or who are of German birth and who have been nominated by the German Emperor. The first American Rhodes scholars were appointed in 1904.

Doctor Parkin says, in an article in the *North American Review* for June, 1909: "Starting with a profound belief in the high destiny and beneficent influence of the British Empire, and eagerly desirous to promote the permanent unity of its various parts, while increasing their strength and usefulness, his first intention as a means to this end was

to bring the youthful vigor of the colonies into touch with the experience and culture of the Mother Land, in the belief that both would thereby be benefited. As time went on, his advancing thought led him to conceive that still higher ends could be served by the coöperation of the United States with his own country in carrying forward the work of civilization, and still further that the increasing influence of Germany made its support and sympathy for the same purpose of the utmost importance. He believed that great good would result to the world from a mutual understanding between these various peoples, and, using the means which he had in his hand, he took the step that seemed to him most likely to promote such an understanding. His plan was very simple. He would secure as the agents of his purpose picked young men of these nations. For these he believed that the strongest bond of sympathy would be created by a common education. He therefore arranged that for all time to come nearly 200 scholars of these countries should be educated together at the most ancient and famous seat of English learning and training."

The Kahn Foundation.

M. Albert Kahn, at present a resident of Paris, has arranged a gift which provides a year of free travel for college or university teachers, with a view not simply of their seeing the world but of broadening their intellectual outlook and widening their understanding and sympathies concerning alien peoples. The present fund provides for two of these Kahn Travelling Fellowships each year, and the appointments are made by the Trustees of the Foundation, who may be addressed in regard to the matter at Columbia University.

Commercial Education.

COMMERCIAL EDUCATION IN NEW YORK.—The Chamber of Commerce of New York City has appointed a committee, of which Mr. George P. Brettis is chairman, to endeavor to secure better commercial training in the elementary schools for boys and girls who are obliged to leave

school at the age of 14; to obtain better facilities for commercial education in the secondary schools of the city; to establish evening schools, both elementary and high, for commercial training; and to establish a well-equipped and thoroughly organized college of commerce. The great need of the latter is felt because of the demand for experts in dealing with the city's rapidly growing export trade and because of the demand for well-trained teachers of commercial courses. This college would be expected to train men for such positions as bank managers, directors of large enterprises, and all similar positions demanding extended expert knowledge. Especially should it educate men in the use of foreign languages and make them familiar with the customs, history, and economic conditions of foreign people.

The purpose is also to establish a free employment bureau for the use of all students of commercial education who shall secure the Chamber of Commerce certificate of proficiency in commercial subjects. The plan also includes a Commercial Museum, which shall contain a well-equipped library bearing on subjects which are of value in a commercial Education. To carry out the plan the Chamber has decided to form a Commercial Education Council, to consist of some of their own members and of other residents of the city who are interested in the subject. Whatever this Educational Council does, it is to be hoped that they will coöperate with the public-school system of the city, with its well-equipped educational leaders, its well-organized working force, and its long years of educational experience on which to build sanely and safely.

SAFE INVESTMENTS.—A new form of training is being added to the curriculum in many of our schools of commerce that have departments of economics. In the University of Wisconsin and a number of other colleges and universities these departments are now including instruction in what constitutes a safe investment. When it is remembered that the Post-Office Department of our National Government estimates that approximately \$77,000,000 were taken, in 1911, from the pockets of credulous investors by the promoters of fake investments, and that this takes no account of the money lost in legitimate but poor investments, the need of such education is apparent.

A practical course of this sort has been opened in the School of Commerce of the Northwestern University, and it is has met with so much favor among the business men of Chicago that they have contributed liberally to its support. The course gives not only the usual training in professional accounting, commercial law, business organization, and railway rate making, but also a full course in finance. In this course a full description of financial institutions and of financial methods is supplemented by a description of monetary and banking systems and the proper relation of banks to speculations, panics, and financial crises. To this is added a study of the function of business organizations and the methods of organizing and promoting them, the use of bonds and stocks, the administration of corporate funds, the establishment of credit, and the relations of corporations to the public.

It is because unscrupulous sharpers prey upon the ignorance in money matters of so many victims that such investment-training is needed. But it has the additional advantage of giving the community experts to turn to for advice and assurance in matters of investment.

PART IV

CHAPTER VI

MATTERS PERTAINING TO THE EMOLUMENTS AND PROFESSIONAL STANDING OF TEACHERS.

Salaries.

THE Committee on Teachers' Salaries and Cost of Living, appointed at the 1911 meeting of the N. E. A., has rendered a very complete report of the results of what appears to be a most careful although limited study of the subject. As expert economists and statisticians collected and collated all the important data and as five typical communities are represented in the study of economic and social conditions, the report possesses exceptional value as a scientific study of the whole subject. Some of the most valuable parts of the report follow.

INCREASED COST OF LIVING.—In the case of 15 staple articles of food the Bureau of Labor finds that, from 1896 to 1911, retail prices increased 50.2 per cent. This upward flight continued in 1912, so that, by June, retail food prices averaged 61.7 per cent higher than in 1896. This means that, as compared with 1896, a \$1000 salary possessed a purchasing power of only \$624.61 in 1912. In other words, to be as well off economically the teacher who received a salary of \$1000 in 1896 should have been paid a salary of \$1617 in 1912. And this takes no account whatever of raised standards of preparation for teaching or of the increased money calls of the position in 1912. This great increase in the cost of living, and the teacher's relatively poorer position because of it wherever increases of salary have not kept pace with this growing cost of living, is one of the important factors to keep in mind in every consideration of the salary question.

OTHER DATA.—Five cities, representing four distinct geographical sections of the country, were chosen for the

investigation. In one of these cities it was found that 40 per cent of the teachers were under 25 years of age, and, including all five, 13.1 per cent of the teachers were men. Of the women teachers of the group, 93.2 per cent were single, and the average number of children in the families of the married male teachers was approximately 2, thus making an average of 4 persons to be wholly supported by the salary of the male teacher. Approximately 60 per cent of the female teachers of two of the cities had others wholly or in part dependent upon them; but in the other cities this percentage was lower, owing to the lower average age of the teachers. The average weekly commercial rate paid for board and room varied from \$7.15 in Denver to \$4.90 in Atlanta.

"More than half of all the teachers in the five cities belong to groups adding less than $2\frac{1}{2}$ per cent and nearly 90 per cent belong to groups adding less than 5 per cent. to their salaries from extra teaching or other outside work. In practice, therefore, the opportunities open to teachers to supplement their salaries in this way are not very largely productive." The amount of savings for the year 1911 were small—from \$30 to \$90 was the average for those whose salaries ranged between \$550 and \$900. "The larger percentages saved as salaries are advanced toward the prevailing maximum indicate a provident spirit among teachers"; but "Under existing conditions it is clear that the great majority of teachers are so situated that they cannot save enough from salaries to enable them to retire at their own expense."

The report is very specific on the length of the teacher's working day, which it considers under the three headings: (a) The number of hours required to be in the school-room; (b) the number of hours spent in grading papers, preparing lessons, and other work directly connected with teaching; (c) the time spent in meeting other professional demands. "Due to the habit of taking the first of these items only into account, it has long been a fallacy that the teacher's working day is a very short one." Whereas, considering all three of these items, the reverse is known to be true. The daily averages in these respects approximate $5\frac{3}{4}$ hours in the class-room, 2 hours in school work done

at home, and 1 hour in meeting indirect professional demands—a total of $8\frac{3}{4}$ hours per day. “Taken in connection with the figures noted above, it goes far toward establishing the contention that the working day of the teacher, which in appearance is so short, may, with due consideration of the nervous strain and extra duties involved, really be long and burdensome.”

The educational and professional training of the teachers in the five cities studied for the report embraces the average number of years spent in: (a) common schools; (b) high schools; (c) normal or teachers’ training schools; and (d) colleges and universities. In addition, the time spent in summer schools, extension courses, etc., is also noted. On these bases, the time for women grade teachers varied from 12 to 13.58 years; for women high-school teachers from 13.55 to 16.82 years; for men grade teachers from 13.47 to 14.91 years; for men high-school teachers from 13.95 to 16.10 years. The largest average amount of time spent by grade teachers in summer-school professional preparation was .37 of a college year by the women of Denver. The largest average amount of college or university preparation credited to grade teachers was by the men teachers of Cincinnati, 2.20 college years—the highest for women was .79 years, also in Cincinnati. For high-school teachers, the average time spent in college or university work varied from 1.45 to 3.66 years for women, and from 2.50 to 4.20 years for men. “As between men and women of the same teaching rank, the former show longer average periods given to educational and professional preparation in every case where comparison between the sexes is possible, save one, the high-school teachers of Hamilton.”

The expenditures of teachers are grouped under the items of rent, food, clothing, life insurance, religious purposes, charity, amusements and vacation, care of health, etc.; and an effort was made to indicate the effect of community standards upon teachers’ as compared with workingmen’s budgets in the two items of rent and clothing. In the case of the latter item the smaller average size of teachers’ families reduces the economic burden somewhat—a doubtful gain from the social point of view. Teachers also spend relatively more than workingmen for life insurance, relig-

ious purposes, charity, amusement and vacations, and care of health. For dues of teachers' clubs; educational books; fees for institutes, lectures, normal courses, summer schools, etc.; contributions to school activities; and transportation costs to educational meetings and conferences, the expenditures varied from 1 to 7 per cent of the total. Board, room-rent, and clothing used up from 58 to 78½ per cent of the total expenditures in the cases of the unmarried women who reported on these items. "It is evident that where so large a proportion of teachers' salaries is claimed for the elementary necessities of food, shelter, and clothing scant margin is left for vacations, care of health, self-improvement, and provision for the future."

TEACHERS' SALARIES AND THE SALARIES OF OTHER MUNICIPAL EMPLOYEES.—The salaries of both these groups are paid out of funds raised by taxation from the same body of people; hence a comparison between the two reflects community standards which are significant, although it is doubtful whether the salaries of municipal officers very often represent rational plans of compensation. In the case of teachers' salaries such a plan is in some cases at least approximated. "Political pressure, the absence of thorough-going civil-service reform methods, and popular indifference, are all responsible for this state of affairs" where no rationally adjusted scheme exists. In one of the cities embraced in the investigation, women stenographers in the city employ were on a par in salary with teachers of the preferred or highest class; common laborers, such as street cleaners, watchmen, etc., received as much as young men in their first year of teaching; policemen entered service at a salary of \$300 above the minimum paid teachers of the preferred class; and the maximum paid such teachers only equalled that received by street and sewer inspectors. In another city, no municipal employee, no matter of what occupation, sex, race, or color, received as little per year as the initial salary of a grade teacher; both the minimum and the maximum salaries paid clerks in the city departments were considerably in excess of those paid grade teachers; policemen received a maximum of \$180 a year more than the maximum paid the grade teacher; and high-school teachers during their first 5 years of service and the

principals of the smaller elementary schools ranked in salary with experienced clerks and stenographers and the upper grades of patrolmen and firemen. "It is also noteworthy that the highest salaries obtainable in the school service beneath that of superintendent (*e.g.*, by principals of high schools, supervisors, principals of larger schools, etc.) are much lower than the salaries paid to heads of departments and many of their subordinates in the city's service."

This report certainly deserves the careful consideration of all who have anything to do with the fixing of the salaries of teachers, as well as of teachers themselves, especially as it is considered in the light of such economic influences as the following, which the committee quotes from Seager's "Introduction to Economics":

The earning power of each worker depends on two circumstances, neither one of which should be lost sight of in a discussion of wages. These are the appreciation in which the goods he helps to produce are held by consumers and the number of workers competent to engage in such production, as his competitors. . . . The highest earnings go to those who have unusual qualities for which there is great demand. . . . Men do not consider the money return which an occupation promises merely, but all of the advantages and disadvantages connected with it. The principal other considerations which offset and consequently help to perpetuate differences in money wages are the following: (1) It is not money wages, but real wages, that are compared, and the latter vary with the expensiveness of living in different localities; (2) Some occupations require longer apprenticeship and more expensive training than others. In practice capital invested in training affords a very high return, because so many of those who might benefit most from training are too poor to afford it; (3) Occupations differ in the ease or difficulty of the work required; (4) Some positions are more dangerous than others; (5) The chance of success and the rewards of success are different in different occupations. In the professions, especially, nothing succeeds like success (successful professional men, other than teachers, as a rule have large incomes); (6) Some positions are held in high esteem and offer social advantages to compensate for lower earnings; (7) The regularity of employment must always be considered; (8) The chance of advancement and promotion must also be taken into account.

The words of a Denver teacher sum up very neatly the main arguments of the report: "A teacher's salary should be sufficient to enable her to live comfortably, dress simply

but in good taste, supply books, etc., in order that she may keep abreast of her profession, furnish such vacation and other recreation as shall repair physical and nervous waste, lay aside (without being niggardly) means to meet accident, illness, or temporary loss of employment, and maintain insurance that shall furnish a retirement fund when she must lay down her work."

At the end of the report will be found the teacher's retirement (pension) laws of the various States in a form that should furnish valuable assistance to any one desiring to make a study of the subject, or for those who may contemplate similar legislation. It is interesting to note that 20 of the States already have such laws.

Professional Standing.

TRAINING SCHOOL FOR NORMAL SCHOOL INSTRUCTORS.—One of the three millions of dollars given at the close of the Civil War by George Peabody of Boston for the work of reconstruction in the South was used in founding the Peabody Normal College at Nashville, Tennessee. The purpose of the institution, which was opened in 1875, is to prepare teachers as instructors of prospective teachers in the normal schools of the South. The idea is one which might well be imitated in other places, especially under the reorganized form that the work is now assuming. The trustees of the Peabody Fund have agreed to give an additional \$500,000 to this Normal College provided it also raises a sum of \$1,000,000 within two years. This it is endeavoring to do, and in the meantime it has affiliated its work with that of Vanderbilt University, thus securing the advantages of higher scholarship and better research power for its students. As many of our normal-school instructors have not had the double advantage of thorough professional training for teaching and that of college training, our normal schools are not all as well equipped as they should be for meeting the demand for the thorough equipment of prospective teachers. This in its reorganized form the Peabody Normal College should be well prepared to do.

SUPPLEMENTARY PROFESSIONAL STUDY.—One of the most serious problems facing a superintendent of schools

is how to encourage continued professional growth and development in his teaching force. Progress in the classroom is no longer merely a desirable thing; it is a necessity. Stagnation in educational work in these days of rapid evolution means educational death. The teacher must not only know, he must know the best. He not only must know what has been done but what is being done, as well as what is being projected. He must also have the knowledge and training that will enable him to sift out the worthy and the practicable from the unworthy and the visionary. To keep abreast of the tide of true progress, therefore, requires systematic attention to professional things aside from the daily demands of the school.

One of the best plans devised for this purpose is the reading of two or three professional books each year in addition to whatever attention may be given to educational periodicals. But the difficulty has always been that the mere reading of these books is apt to leave but vague results. To obviate this, Superintendent J. M. Greenwood, of Kansas City, Mo., has introduced a plan which promises excellent results. As Doctor Greenwood is revered by all who know him for his wisdom in educational matters, what he has to say on the subject of professional growth in a circular letter to his teachers is copied almost entire. "No continuous method," he says, "of keeping principals and teachers in a perennial condition of educational growth, after they have been once regularly installed in a system of schools, has yet been devised. Every city of any size in this country is contributing something toward a tentative solution of this problem. The broader conception that education is a life work, instead of a dozen years or more of training through infancy, childhood, and youth, necessitates a new adjustment to ever-changing conditions. The race each instructor is to run is that of getting each day ahead of himself. A part of this course of educational improvement is open and clear. Each year a few thoughtful, helpful books on education are issued in this country and in Europe. These are accessible to all earnest students who wish to keep up with the best thought, and to become saturated with the influence of the most liberal minds." He then recommends principals and teachers to form them-

selves into classes for the purpose of studying and reciting from one of the two books he recommends. "It is not only to be read, but to be discussed, and, at or before the close of the scholastic year, each principal and teacher will write a thesis the text of not less than a thousand words, and leave a copy with me." The doctor closes his circular with the assurance, "To select better wants and to help you to supply these wants is my sole object."

THE TEACHER AS A SOCIAL BEING.—The late Commissioner Andrew S. Draper, in a recent address, so clearly outlined the teacher's relations to the lives of others that his words are quoted entire. "Man as a social being finds," he said, "a large part of his life to be made up of adjustments to the lives of others. Education, whether in the instruction furnished by the schools or in the experience acquired by the daily routine, consists mainly in learning how to meet others and fulfil our duty to them in a broad and human way. This can be seen by thinking in detail of the life of any class of individuals,—the teacher's life, for instance. The teacher's life must be adjusted to the requirements of the community she serves. This community has a right to demand that she be reasonably healthy in body, clear and well-instructed in mind, true, pure, and unselfish in character. Otherwise her work in teaching cannot be successful and worth while. Her life is also closely related to her fellow teachers and to her pupils. If she does not adjust herself successfully to these varied relations, she is a failure. She has still other relations,—to her parents and the various members of her own immediate family; to her neighbors; to her church, it may be; to her college, if a college graduate; and to all who know her. Life for her, in the broadest view, consists in rightly fulfilling her obligations each day and at all times, to all those with whom she is brought in contact. Failure at any point more or less affects her success and value all along the line."

Psychology.

CAUTION IN REGARD TO "AVERAGE" RESULTS.—Doctor C. G. Myers, of Cambridge University, during a recent conference of London teachers, uttered a word of warning as

a psychologist against a wrong interpretation of average figures and results. "The one important lesson of psychology for pedagogy," he said, "concerns the importance of individual differences and the worthlessness of averages. Always suspect an average result. Treat an average figure as having the same reality, the same warmth of intimacy, with which you would receive (for your consideration or guidance) the information that the average life of an individual is, say, thirty-seven years. Look to the individual differences which an average or a coefficient or correlation hides under cover of its specious but blurred simplicity. It is true that as teachers you are concerned with children *en masse* and that you ask for practical suggestions for class work. But the highest interest of the best teacher must always centre in the study of the children as individuals. Therefore, when you meet with a figure giving, for example, the average improvement which thirty children after practice at dividing short lines are able to transfer to the subsequent division of longer lines, ask yourselves the inner meaning of this figure. What are the individual differences among the children? Are only some children capable, while others are incapable, of carrying over the practice effects? Or do all the children in a very moderate degree carry over the practice effects? To answer these questions you must have recourse to the individual child."

FEARS.—While fear in its normal aspects tends to instil caution and prudence in regard to things that are injurious or destructive and is therefore intrinsically a useful emotion, it so easily assumes an abnormal and morbid form, which saps efficiency and produces distress, that parents and teachers should understand it in all its relations as fully as possible. Both physiology and psychology have taught us much that is valuable about fear and its manifestations; but there have always been certain aspects of it that have baffled satisfactory explanation. These are what have been known in the medical profession as *phobias*, or what H. Addington Bruce, in the *Outlook* for March 9, speaks of as the "paralyzing, appalling fear of doing some trivial, every-day act, or of coming into contact with some familiar and entirely harmless object." These phobias seemingly

develop and exercise their power without reason and often with a force that will not subject itself to restraint.

In accounting for these abnormal, morbid fears, psychologists have been accustomed to fall back upon evolutionary doctrines and to attribute them "to the emergence of ancestral traits and instincts once of real biological value." But recent researches of medical specialists, who have also been trained psychologists, have thrown much valuable light upon the origin and possible prevention and cure of these phobias and in a way that should be especially helpful to all who have to do with the education or uplift of their fellow-men.

In the first place, it has been found in every case scientifically studied that the morbid fear was due to a revival of experience in the life of the victim himself and not to a reverting to primitive ancestral traits. "The sufferer may honestly declare his inability to recall any antecedent happening of a fear-inducing character. But it is found that, subconsciously at any rate, he always carries with him a vivid memory image of some occurrence that at the time shocked him greatly; and that his phobia is due to the ceaseless presentation in his subconsciousness of this vivid memory image."

In the second place, although the initial influence has usually been severe enough to have left all the impress of indelible emotion, it may just as well have been the cumulative result of a series of disturbing influences. Fear has always a tendency to function to excess, especially in the formative period of childhood. It is also the one emotion that completely routs the resources of ability, judgment, and will. And it makes but little difference whether the danger has been actual, the distressing circumstances real, or the test beyond or within the power—the results, in their paralyzing effects, are the same.

Third.—The physical condition has much to do with the manifestation of these phobias. A lowered vitality induced by grief, worry, overwork, or the nervous tension produced by severe and unsympathetic relations, makes the patient peculiarly liable to attacks of these fears. Something occurs that by association of ideas reminds him, possibly

only subconsciously, of the earlier experiences; ordinarily there might be no disagreeable effect, but in his weakened condition a channel of discharge is found and the mental and physical results manifest themselves.

Fourth.—It is recognized by the medical men of to-day that all forms of dreaded organic disease may first be simulated, and finally engendered, by the after-effects of such fears. Nothing is more destructive of physical tone and vigor than fear; nothing is quite so persistent in its influence as suggestion; and when, either within or below the field of consciousness, there is a persistent dread, the ground is well prepared for the thing to come to pass.

Fifth.—Although, fortunately, early fears with the majority of people are overcome by later experience training or exercise of will, and therefore do not usually result in phobia or other functional disease, yet it still remains true that all these fears are apt to make their influence felt upon the later life. "In some men they may engender lack of self-confidence, and even a despicable cowardice; in others they may breed superstitious terrors and usages. Always, in some way, one may depend on it, they will affect the intellect, the character, the whole mental and moral make-up."

Whatever, therefore, awakens fear, develops dread, destroys confidence, or even cultivates discomfort or distress in the presence of that which is desirable, should be religiously kept out of the life of the child. Parents who in the presence of their children discuss accidents, crimes, and other sensational things; who betray fretfulness, dissatisfaction, anxiety, unrest in their dealings with their children; who even go so far as to use fear as a means of coercing into good behavior; or who are so reckless of parental duty as to subject their children to the morbid tales of ghosts and demons in which ignorant and superstitious nurses so often take pleasure, are sapping their courage, filling their young lives with fear, and are sowing in exceedingly sensitive soil the seeds of future dread and disease. And the harsh unsympathetic teacher who by her words and manner destroys confidence in the ability to do, magnifies difficulties, and suggests distaste for knowledge, is unworthy the name and place of teacher.

MIND AS A SPIRITUAL FORCE.—There is good ground for believing that the advocates of a purely physiological psychology which maintains that mind and brain are practically the same thing, the former being even in the human being just a necessary result of the latter, have reached a point where they are willing to acknowledge the possibility of mental and spiritual agencies not to be accounted for by mere sense-organs and brain-cells. No less an authority than J. S. Macdonald, in his recent presidential address to the physiological section of the British Association, clearly manifested this attitude. As quoted in the *London Lancet*, he admitted that the physiological explanation of all spiritual acts is not satisfying to many who, through introspection and after careful consideration of the possible explanations of various types of experience of a large number of people, feel that the physical school is not quite convincing. He says that "in those departments of biology which deal with actual facts, and draw up theories afterwards, there has been of late the exhibition of a tolerant attitude towards inquirers who, finding themselves face to face with what they cannot explain, are willing to weigh the feasibility of theoretical considerations which might, if they could be proved to be realities, show the real connection between the psychical and the physical."

The essential point, as the *Lancet* says, is that the scientists are coming to see that there is sound reason for the view that the mind is not directly associated with life, or controlled by living matter, but only indirectly through certain conditions or tendencies that accompany the activity of central nervous substance. And having taken this new view, many of them stand ready to investigate the existence of the soul, mind, force, or whatever it may be, not so much with the hope of proving its existence and its nature as in the hope of discovering the laws under which it is apt to act, and through experiment and observation to get more convincing proof of its existence.

PUNISHMENT.—The old torture idea for wrong doing lingers long in the common thought of punishment. The traditional feeling is that severe and painful punishment exterminates wrong thoughts and acts. A hundred years ago there were in Great Britain no less than 200 offences

that were punishable by death. And, because severe punishment was regarded as a deterrent of crime, executions were public. They did not then know, even as we do not always now fully realize, that through the power of suggestion brutal revengeful punishment always arouses thoughts of violence and blood. Severity and torture are not necessary either to protect society or to cure the criminal, and, although Great Britain has abolished the death penalty for all but a few of its former 200 instances, there have been none but good results from the change.

We are coming to see the advantages of both curing and preventing crime through the discipline of kindness and trust, rather than endeavoring to do so through suspicion and severity. In other words, it has been found far better to build up self-respect and to appeal to the better instincts than to destroy self-restraint and appeal to the worst within the life. Even in prison discipline the best results are being secured by recognizing that there is no distinctly criminal class and that all belong to the fellowship of the common life. The so-called criminals are like the rest of us only for various reasons they were unable to resist; or possibly they differ from us more because they did things bringing them within the pale of the law than because they were more inclined to evil than we are. At all events, the most effective way to bring them back into law-abiding ways is through normal conditions of life and work, rather than through "outcast" methods. And there is no more wholesome lesson for the teacher than for her to see that often she is "outcasting" her "bad boy" and, through the very influence of her methods of separating him from his fellows as well as from herself, she is simply aggravating his "badness" and preventing his reform.

The Organization of the Teaching Profession.

The apparent helplessness of teachers and school executives under the tyranny of adverse conditions and personal wrongs has often suggested the possibilities of presenting a united and well-organized front to the enemies of the cause of education and an effective alliance to stand for the personal rights of the teacher and the school executive. The thought has been that the half million teachers of the

United States could, through closer organization, present a bolder and more effective opposition to the things menacing the welfare of the schools. They could also more effectively protect themselves from the more glaring acts of injustice so often perpetrated against individuals of the teaching profession by trustees, boards of control, the public press, and personal enemies who for the time possess sufficient influence to menace the work and even the position of competent and faithful school workers. Such an organization could, according to this thought, also be made an effective check against unprofessional practices on the part of school workers themselves, as well as a tremendous influence for the general improvement of the entire teaching profession.

Against the forming of such an organization it has been urged: 1. It could have no authority to enforce its demands and only such influence as could be built up through campaigns for support, publicity, personal denunciations, and suits for damages. And in personal matters these things would react to the ultimate disadvantage of the individuals involved. 2. In the estimation of the public the organization would usually appear to be pursuing its own selfish ambitions and the personal welfare of its members, rather than to be actuated by the highest ideals of public service. 3. An imposing membership could be secured and retained only through the evidences of material advantage in belonging to the organization. Although many would join and work from higher motives, they would not constitute a sufficient number to exercise any great weight of control over the situation. 4. The organization would inevitably degenerate into a dictatorship in educational affairs that would be resented, especially in what the public would often regard as its personal and local rights. This same arbitrary dictatorship would be manifested toward all non-members of the organization in their efforts to secure place or recognition. 5. It would soon be rent by internal dissension because of the claims of rival candidates for preferment and promotion. 6. The teaching profession deals largely with the spiritual forces of life and is dependent upon public interest and public enlightenment for its real support; and none of these things yield to any other domi-

nation than that of general social progress. Any effort to force issues which the public is either unwilling or unprepared to accept merely produces artificial and temporary conditions. Hence any form of trade-unionism among teachers is both undesirable and impractical.

However, an able article bearing upon the desirability of closely organizing the entire teaching force of our country was written by Doctor Henry Suzzalo, of Columbia University, for the *Sierra Educational News* and well deserves thoughtful consideration. "With adequate organization of the half million teachers in the United States," he says, "we can force commercial concerns into fair dealing, compel boards of education to recognize expert judgment, and force out of existence the teachers' agencies which thrive on our professional neglect." We can also bring about proper attitudes toward each other in our professional work, curb the educational demagogue, check the reactionary, and awaken respect for our word in legislative bodies. At present only about ten or twelve thousand of the entire teaching body of the country belong to any existing national association, and even these are more or less transient in their interest and activity. This makes our voice weak in the councils of the mighty. Even State organizations, as they are operated at present, are more or less transient in their interest and membership and there is no adequate existing method for securing coöperation among them. "Both State and national associations are organizations with a merely occasional purpose. The chief function of the permanent officers is to arrange for the annual meetings, at which the main business of members is to listen to addresses. Such organizations usually have no power over practical educational affairs in the interim, and even the resolutions of such meetings have few consequences. The need is for a more adequate national organization of *all American public school teachers* upon a permanent basis which will insure a day-to-day influence upon school affairs." The existing plan of holding annual conventions must be replaced by such organization as will provide for frequent local business and professional sessions. To maintain a democratic spirit the organization must be from the bottom to the top,—i.e., local teachers'

guilds must be the centres of activity, and all the larger units, district, State, and national, must be merely a federation of these, operated through delegates and carefully selected leaders.

Some of the specific policies of such an organization, as outlined by Doctor Suzzalo, would be as follows: (1) The primary purpose would be to increase the efficiency of teaching as a public service, and, as a mode of attaining this chief end, its secondary purpose would be to improve the status of the teacher; (2) To make professional efficiency in the public service the sole standard for the employment, assignment, promotion, demotion, dismissal, and release of teachers; (3) To remove the selection of boards of education from the domain of partisan politics; (4) To eliminate the pressure of text-book and supply houses from educational affairs; (5) To eliminate teachers' agencies by establishing free employment bureaus within the organization itself; (6) To make it unprofessional for teachers to use influence of any sort whatever to secure appointment or preferment; (7) To guarantee to the expert head of any administrative unit that he and not the board of education or board of trustees shall have the right to initiate action in all matters involving expert professional knowledge and judgment; (8) To improve and unify the standards and means of training, certificating, and appointing teachers; (9) To establish a tenure of office which cannot be broken except for cause; and (10) To improve the economic status of the teachers by establishing salaries over and above the cost of living, with State-wide pension systems which give due recognition to service in other States.

PART V

CHAPTER VII

SOCIAL PROBLEMS.

The Camp-fire Girls.

YOUNG people are fond in their play of imitating their elders, and find an especially strong appeal in the things that hark back to the primitive and simpler forms of life. It is knowledge of these instincts in the young which led to the Boy Scout Movement and which has now developed a similar movement for girls. Both the Boy Scout and the Camp-Fire Girl find ample scope in their respective organizations for their natural fondness for out-of-door life, for their constructive inclinations, and for their social instincts. But what is of more value is the great gain to society that comes from turning their play instincts into channels of helpfulness and into ways of physical and moral safety.

It was the primitive hearth, the centre of the family life, which suggested the ideas and name for the Camp-Fire Girls. The *hearth* is the symbol of the homely yet wholesome activities out of which civilization has grown. It is around the *fire* that the family and friends gather, for it gives warmth and cheer to the home. Fire also lights the *torch* and enables the torch-bearer to lead others safely through the darkness. These three things thus become the symbols of the three possible degrees in the Camp-Fire Girl's life,—the Wood-Gatherer, the Fire-Maker, the Torch-Bearer. Each has its symbol and its code of ethics. There is also a uniform worn by all the girls, the distinguishing feature of which is a blouse with the emblem of the organization embroidered on the left arm.

The Wood-Gatherer is the first of the three degrees. The creed of the Wood-Gatherers is to—

Seek beauty.
Give service.
Pursue knowledge.
Be trustworthy.
Hold on to health.
Glorify work.
Be happy.

She is permitted to wear the ring which is the symbol of the degree, as well as the blouse with the Camp-Fire emblem on the left arm.

It is far more difficult to become a Fire-Maker and requires at least 3 months' preparation unless the candidate is able to devote all her time to it. There are 13 definite requirements, which cover quite a wide range, from such practical occupations as preparing and serving meals for camp-fire meetings, mending stockings, living the healthful life involved in sleeping with open windows and taking an average of at least a half hour's out-door exercise daily, to the knowledge of what to do in cases of emergency, of the chief causes of infant mortality, and of what a girl of her age should know about herself, and the study of some good poem and the life of some woman who has done much for the country or State. There are certain honors connected with this broad variety of work, each represented by a bead of a different color, and a girl must win at least 20 of these beads before she may become a full-fledged Fire-Maker. The Fire-Makers have the following guiding song:

As fuel is brought to the fire,
So I purpose to bring
My strength,
My ambition,
My heart's desire,
My joy,
And my sorrow
To the fire
Of humankind,
For I will tend
As my fathers have tended,
And my fathers' fathers
Since time began,
The fire that is called
The love of man for man,
The love of man for God.

To advance to the third rank, or that of the Torch-Bearer, is not so difficult. This is her desire:

That light which has been given to me
I desire to pass undimmed to others.

After having attained to the excellencies of the other two degrees, the Torch-Bearer merely pledges herself to pass the good results of her own efforts on to others. But, as with the Fire-Makers, there are honors to be won which are symbolized by beads. In fact this is true of the whole three degrees, which contain altogether 7 groups of honors, each represented in its entirety by a chain of beads; so that a girl may win altogether 7 chains of beads. In the "Home-Craft" group, or the group of activities centring in home-life, it is possible to win a necklace of 50 beads.

Each Camp-Fire Club is presided over by a head person, or guide, who is known as the Guardian of the Fire. She gets her license from the head-quarters of the organization and may work out the activities of the club in various ways. The ideal way is, of course, the real summer camp in the woods with its real evening camp-fire. But tramps and trolley rides and in-door activities in winter and during inclement weather are in some respects even more effective, because of the greater number who can participate.

Girls may also win honors for doing many helpful things about their own homes, and for others outside the home, which are not enumerated in the list of honors. This gives a broad social significance to the movement, and makes it valuable not only in satisfying the play instincts and conserving the health but also in preparing girls for the beauties and duties of home-life.

The Drama as A Social Force.

Doctor Brander Matthews in a recent address declared the drama to be the most democratic of all the arts because it appeals to all classes. It is also the most exacting of all the forms of literary expression and this gives it high value from the artistic point of view. The dramatist is compelled to pack his ideas into a few acts, and therefore is obliged to omit unessentials and to present only the strongest points in his representations. He must also present his ideas so

that they unfold naturally and entertainingly. But he is portraying life, and, if he does it skilfully, he will always win the interest of his audience, for the dramatic instinct is present in both young and old. This gives the drama high possibilities as a moral and social agency.

Doctor Matthews answered the cry against the deterioration of the stage by saying that a country probably has as good dramas as it deserves: "If we do not have the proper kind of plays, whose fault is it? It is ours. If we want them better we can have them better. The theatrical managers tell us they give us what the public demands. We must first educate ourselves, then the general public, and last of all the theatrical managers." And what Doctor Matthews says of the drama is just as true of the motion-picture displays, especially when they are used for dramatic representation.

Museums as an Educational Force.

There are many museums and picture galleries in this country whose valuable collections are comparatively unknown in the cities where they are located. While some of them attract crowds of visitors on fair Sunday afternoons, these visitors are usually attracted by mere curiosity, and no one who knows the meaning and worth of these collections but deplors the slight meaning they have for most of their visitors. That these collections can be raised from a passive to an active educational force has been abundantly demonstrated wherever the school and the museum or gallery have coöperated in this phase of their work. The school, both in its regular daily work and in its evening social-centre work, affords an excellent opportunity for making such collections not only popular but full of meaning. Although many of the exhibits cannot be brought bodily to the school, pictures and interesting descriptions of any of the exhibits can. In these days of the projection lantern and the moving picture it should be easy to give more meaning and profit to these great store-houses of possibilities for educational uplift.

Chicago has been so much disappointed at the slight use made by the schools of the Field Museum, which repre-

sents an outlay of great sums of money as well as of vast amounts of thought and effort, that Mr. N. W. Harris, a rich banker of that city, has given \$250,000 for establishing small cabinets of exhibits to be prepared by this museum and sent from school to school. These travelling exhibits are to be accompanied by brief lectures on the things represented in them. The idea is not a new one in educational practice; but it is to be hoped that the Chicago effort may arouse to new life much of this dead concrete educational material lying at the very doors of so many of our urban schools. There are also many good reasons for gathering together in every large community school, whether in the city or in the country, a collection of products and processes, of pictures and descriptions that help to an understanding and appreciation of geographical and historical facts or to a fuller and better knowledge of the animals, plants, and minerals found in the vicinity. Such a local museum can be made a matter of community pride as well as a thing of great educational value.

The Library in Education.

EXTENSION OF PUBLIC LIBRARY WORK.—Helen Lockwood Coffin calls attention, in the May issue of *Everybody's*, to the many changes that are occurring in the policy and work of the modern library. The fact that the public has been drifting away from the public library into other interests has led to many things that would have been regarded, even in the recent past, as entirely outside of the province of a library. As the public drifted away from the library, librarians and associations of librarians ceased discussing technicalities of method and devoted their time to inquiring into the causes of low library-appreciation. "Library conferences, instead of considering ways of cataloguing, discussed ways of people." Finally, it was concluded that the public was not coming to the library as fully as it should because "it wanted to play, to be amused, to be recreated; it wanted action, brisk and stirring. It wanted to gossip, debate, discuss, talk back," fully as much as it wanted to read books. Hence, the library became a *social centre*. Written warrant for this movement, Miss Coffin says, is as old as a statement made in the charter of the

Redwood Library of Newport, R. I., in the year 1747, and which was to the effect that the purpose of that library was "to inform the mind, to reform the practice."

The public library of St. Louis well represents this new type of work. Its work is divided into two parts, educational and recreational, and each is given a social trend. The social work of this library is best represented in its branches, because they are smaller and come into more intimate relation with the neighborhoods where they are located. "Here are held club meetings, church conferences, Christmas festivals, May parties, school graduation exercises, cadet drills, mothers' meetings, classes, and so on through all the diverse interests of the usual social centre. The branch librarian makes a series of house-to-house visits, interesting the people in the library, and discovering by personal contact the needs and desires of her constituency." The work in St. Louis is based upon the idea, as stated by the librarian, Dr. Arthur E. Bostwick, that the public library is a public utility and that therefore "Whatever the public needs it is the duty of the public library to supply."

Other libraries of this type are endeavoring to extend their influence by having play-rooms and gymnasiums; by conducting technical schools, with classes in cookery, marketing, mechanical and electrical engineering, architecture, drawing, etc.; by conducting lecture courses; by maintaining business men's information bureaus; by providing meeting places for clubs and organizations; and, in case of the public library in Madison, Wis., by owning and operating a moving-picture "show."

But some of the most progressive, successful, and popular libraries in America do not enter largely into the social centre and general educational feature in their work. Miss Coffin cites the public library in Cleveland, O., as one of the best of this type which emphasizes the cultural side of the work rather than the social. "It issues bulletins generously and keeps in close, sympathetic touch with its patrons, but always with the frank purpose of raising the standard of reading." Its attitude, she says, is well indicated in its selection of material for the story hours given to the children each week. While other libraries are apt,

and very properly so, to select for the telling miscellaneous material from the classics, from biography, nature, science, and travel, in Cleveland the selections are made only from the classics. And they have trained story-tellers there who tell the Greek Myth Cycle, the Norse Myth Cycle, the Iliad, the Odyssey, the Nibelungenlied, and the King Arthur and Robin Hood legends.

TRAVELLING LIBRARIES.—The New York Free Library is rendering excellent service to the cause of education by its system of "travelling libraries." Carefully selected books are catalogued according to school grades, and any teacher in the city schools may select a list of such books and have them delivered at the school free of charge. The teacher is encouraged to accompany the loan of books to the children with personal advice both as to wise selection and advantageous use. The books must be ready for return to the Free Library within five months.

By this plan the best books are placed within reach of all; the library is made a most effective auxiliary of the school; a wise use of proper books is developed; and a love for good literature is inculcated in the lives of the young people.

DOCTOR ELIOT'S "FIVE-FOOT SHELF OF BOOKS."—It is difficult to determine the books to read in order to become familiar with what every man of culture should know. This difficulty is so commonly recognized that when Doctor Charles W. Eliot, the scholarly president of Harvard University for so many years, announced his intention of endeavoring to collate a limited but well-rounded library of liberal education, the announcement was everywhere welcomed, and announcements similar to that in the *New York Times* appeared in a number of American newspapers. "It is safe to say that the entire educational world, and a very considerable proportion of the reading public besides, will await with deep interest the selection of the volumes which go toward making what—for lack of a better name—may be termed "The President Eliot Library of Liberal Education."

The actual conception of the idea and its after-development are best summed up in Doctor Eliot's own words: "Some years ago, in a speech before an educational gather-

ing, I chanced to say that a three-foot shelf would hold good books enough to give a liberal education to any one who would read them with devotion, even if he could give but fifteen minutes a day to the task. This remark brought me a considerable number of letters, demanding a list of those books. I made several efforts to make the list, but soon discovered that it was a serious undertaking, and that I had no time for it. Subsequently I saw reason to lengthen the shelf to five feet, but made very little progress toward a definite selection."

Later on, Doctor Eliot found it necessary to discard the portions of the books selected that did not seem necessary for his purpose, in order "to provide the means of obtaining such a knowledge of ancient and modern literature as seems essential to the twentieth-century idea of a cultivated man" and that he might bring the material within the size he had set for himself. He also found it advisable to arrange the material selected under subject-headings rather than by authors. These changes soon suggested the publishing of the selected material in a new form and Doctor Eliot's "Five-foot Shelf of Books" became a commercial enterprise. Aside from these republished selections from many authors, there is, therefore, now no selected list of books that would meet the conditions at first conceived by Doctor Eliot.

Music as a Factor in Education.

One of the practical advantages of the teaching of music in the schools is undoubtedly the fact that children possessing musical ability are discovered and given a start. If this were the only advantage, however, it might well be argued that the number who develop special musical ability is relatively small and scarcely sufficient to justify the expense in time, money, and effort. The general moral and æsthetic effects are, however, of much greater value, because they reach practically all and are of so much more importance. But in addition to all these values we are realizing a new one whose influence is of far-reaching importance. This is the safeguarding attraction of music, which holds the life away from degrading influences.

Commenting upon this phase of the subject, the editor of the *Outlook* says, in the issue of March 4, 1911: "The real answer (to the supreme value of music-teaching in the schools) lies in the fact that it is quite as important to provide amusements for people of every age and condition as it is to provide food, clothing, and shelter. If the children of the ignorant and destitute poor are not taught how to provide proper and reasonable amusements for themselves, they are likely to indulge in improper and vicious amusements. It should, therefore, be a part of all educational and charitable work to teach the children of the city how to provide for themselves sane and uplifting forms of pleasure. The development of the mental, spiritual, and imaginative side of life is of the first importance, and the results of these musical entertainments (and such musical instruction) . . . have shown (us) how through music the children of the people may have a quick, easy, and permanently effective means to such development."

MUSIC AS A MORAL FORCE.—George Adam Smith has well said of music: "Words are clumsy instruments for the expression of the heart, and are least efficient when they undertake to set forth moral and spiritual ideas. Music can transcend mere speech in touching the soul to fine issues, suggesting visions of things ineffable and unseen. Browning makes Abt Vogler say of the most enduring and supreme hopes that God has granted to men, "'Tis we musicians know"; but the message of music comes home with power to many who have no skill in its art." And it is well for the teacher to remember that it is not so much the ability to render good music, as it is the ability to enjoy the refining and uplifting influence of music, upon which she must rely to supplant the rude and the unworthy when she calls to her disciplinary aid this most gracious of all the arts.

AMERICAN MUSIC.—The love for good music is developing rapidly in the United States; but music as one of the greatest of the fine arts has not yet become as general in our country as it has in many of the European countries. This is not because the people of America lack in innate interest in music, but because it has generally been regarded as a mere pastime and largely as merely a graceful feminine accomplishment. But in a few of our great municipalities

serious attention is given to a study of the great masters of music just as it is to the great masters of painting and sculpture, and the results of careful study and practice are manifest in the work of bands, orchestras, opera companies, and individual performers in New York, Chicago, Philadelphia, Boston, San Francisco, Minneapolis, and other musical centres.

Although the efforts of the universities and colleges to secure serious study and analysis of the works of the great musicians have not yet met with the large success they deserve, there are scores of agencies which in a quiet way are exercising a lasting educational influence upon musical knowledge and taste. Municipalities are creating and supplying the popular demand for good music by open-air concerts; sometimes private philanthropy provides these things, as in the case of the remarkable Music School Settlement, which both teaches music and gives concerts of good music for the benefit of the people on the East Side of New York City; sometimes churches and educational institutions provide it in a series of free concerts; newspapers have also provided notable free public concerts, as in the case of the San Francisco Examiner, which on Christmas Day, 1911, gathered an audience of 100,000 people to hear Jan Kubelik and David Bispham, and the New York *World*, which in 1911 gave a fund of \$10,000 to provide concerts of the best music in the public schools of that city. But probably the most effective agency in the rapid development of an appreciation of good music is the phonograph, which is making so many households in the land familiar with the work of the world's greatest artists and composers.

To appreciate good music one must hear it, just as to appreciate good literature one must read it. "The understanding of music depends neither upon technical knowledge nor upon convention, but upon the listener's immediate and familiar experience of it; an experience which technical knowledge and custom can, of course, aid him to acquire more rapidly, as they strengthen his memory and enable him to fix impressions by naming them." So says an Oxford writer. But he should have added that it will never be understood and appreciated as a fine art until it is known in its structure, its philosophy, and its history.

The *Outlook* for April 6 calls attention to the interesting fact that in America the value of music in cultural education is probably more keenly realized to-day by negro educators than it is by white. "Music plays an important part in the scheme of education at Hampton, Tuskegee, and Fisk, and the result is that the negro students of those institutions, in preserving and writing down and performing their old-time plantation or folk songs, are making the only original contribution to music that is being made, or probably can be made, by Americans." Some day a negro graduate of one of these institutions may write a great symphony based upon these themes and "do for this country what Grieg has done for the folk-songs of the Scandinavian countries, or what Sir Charles Villiers Stanford has done for his native country, Ireland, in the composition of his beautiful Irish symphony."

THE MUSIC SCHOOL SETTLEMENT.—Upward of eighteen years ago there was established in connection with the college settlement work in New York a music school which directly and indirectly has brightened and changed the lives of thousands of people in that great cosmopolitan city. This school is now known as the Music School Settlement, and its senior orchestra may be heard on any Sunday afternoon, in a large concert-hall on East Third Street. "Although the average age of the sixty persons in the orchestra is barely fifteen, their music is good and the enjoyment of their weekly audiences keen and appreciative." The prices for the instruction in this school are extremely low and, in case of inability to pay, are covered by the free scholarships which are constantly being added to by the money gifts of generous friends of the enterprise. Although some of its graduates have gone into some of the best orchestras both in this country and in Europe, the school does not aim to prepare professional musicians. The primary purpose of the whole movement has been to encourage "music as a leaven, a recreation, as discipline, and as a means of character-building."

According to the *World's Work* for March, 1911, this work is well accomplished by the school, for "There is a subtle difference between the boys and girls who attend these classes and the rest of the neighborhood, and all up and

down the East Side there are young graduates giving lessons in their homes, making the lives of drudgery around them bright by their fiddles and their songs. The best criterion of what their fiddles and songs are worth to the community is the sacrifice which both the parents and the children are willing to make to have them."

Home and School.

VISITING TEACHERS.—The Public Education Association of New York maintains 5 "visiting teachers" who serve as a link between the home and the school. It is the business of these teachers to concern themselves with children whom the school finds it hard to manage,—the so-called *difficult* children who, because of irregular attendance, poor scholarship, incorrigibility, immorality, or poverty with its attendant evils of household cares and child-labor, cannot be properly influenced and cared for by the regular class-room teachers. The visiting teacher goes into the home of the child and endeavors to bring its work and influence in line with that of the school; therefore her work is both educational and social—she serves as a connecting link between the home and the school. "She is the sympathetic observer, the helpful friend of both. To fulfil this function, she visits not once or twice but frequently both the home and the class-room, conferring with parent, teacher, and principal. From all three she asks coöperation. The child is the problem to be solved. To achieve the result desired, it is necessary that all available forces be united."

Under the title of "The Misfit Child," Miss Mary Flexner describes, in the March issue of the *World's Work*, how she has employed all the various educational and social agencies in the form of relief societies, day nurseries, settlements, hospitals, fresh-air funds, gymnasiums, scholarship funds; trade, cooking, art, and folk-dancing classes; public libraries, etc., in her work as a visiting teacher in New York, in order to "make good" home deficiencies for the overburdened, underfed, unhealthy, improperly envired, or erring child. She speaks especially of the need of establishing mutual understanding, sympathy, and confidence among all the parties concerned. This is usually not an

easy task, because of incapability, poverty, ignorance, indifference, or sickness in the home.

This composite democracy of ours, she says, presents the most varied problems imaginable. But "its salvation reduces itself in the long run to the individual salvation of its constituent units." It depends upon the personal fate of each boy and girl. Therefore, time and effort spent early upon these otherwise lost and menacing individual units of society will yield rich returns for all expense involved. Many interesting cases of amelioration and reform are cited by Miss Flexner in illustration of what can be accomplished for the child by those who have the training, the time, the interest, and the authority to throw their influence around the life of the *misfit child*.

Conservation.

PROVIDING FOR THE BIRDS.—As our song-birds are of great value in keeping trees and plant life free from destructive insects, their preservation goes hand in hand with our general movements for forest conservation. Omar H. Sample asserts, in a recent issue of *American Homes and Gardens*, that there is a surprising ignorance of the value of birds as insect destroyers and a deplorable indifference to the rapid decrease of our feathered songsters. This decrease within the last 15 years he places at 46 per cent, or nearly half. He says that modern farming, which insists on cutting away the hedges, bushes, and shrubs which furnished favorable nesting places for the birds, is largely responsible for this condition. He then states the need of our replacing by artificial means suitable nesting and feeding places to restore our lost bird-life.

In this connection he calls particular attention to Germany, the model land of forest conservation, where there is a rigidly enforced law protecting 152 species of birds, as well as a strong movement to grow nesting-hedges for them, toward building nesting-boxes in trees, and toward erecting natural and convenient winter-feeding houses for them, and in general toward providing them food, shelter, and protection from their enemies. He describes in an interesting way the 500-acre experiment station for the study and

preservation of bird-life that has been established at Seebach by Baron von Berlepsch, the father of the modern science of bird protection. The Hungarian Government became so much interested in his work that it sent a trained investigator to his estate to study his methods and is now supplying nesting-boxes in the 5,000,000 acres of its state forests.

In connection with this same subject of caring for the birds should be mentioned the setting aside of Marsh Island as a refuge for the birds of the lower Mississippi valley. Mrs. Russell Sage has bought Marsh Island, which is on the Gulf Coast southwest of New Orleans, and has donated it to the Federal Government, the State of Louisiana, and an organization formed for the purpose of controlling it, as a refuge for birds. The conditions attached to the gift are that there shall be no settlements allowed on the island, and that a special government permit be required even to land on it. As this island is famous as a feeding ground for the mallards, canvasbacks, black ducks, teal, snow geese, blue geese, herons, bitterns, loons, rails, and many varieties of land birds, it will prove a regular paradise for our feathered friends.

This bird paradise is 18 miles long and 9 miles wide and contains approximately 75,000 acres. That such provisions for saving the birds are needed is clear from the fact that in Louisiana, during the hunting season of 1909-10, there were over 4,000,000 game birds slaughtered, and this takes no account of the large number destroyed to furnish feathers and wings for ladies' hats. The *Christian Herald* for October 30 says, "The provision of the refuge will be the most pleasant news the birds of North America have heard since the reading of the will of David Wilcox, which made possible the formation of the National Audubon Society for the study and protection of the feathered tribes."

ARBOR DAY PAMPHLET.—*Education* for June reports that the Public Library of Jersey City is publishing a series of pamphlets, on anniversaries and special occasions, that should be useful to teachers and social workers. The one issued on "Arbor Day and some facts about Trees" gives a fair idea of the scope of these pamphlets. The following

are its headings: Arbor Day; Origin and History; Methods of its Observance; Benefits derived from its Observance; Tree Worship; Trees; Age and Size of Trees; Uses of Trees; Historic Trees; Forests of New Jersey; Shade Tree Commissions.

SCHOOL SAVINGS BANKS.—The teaching of thrift, or the conservation of money resources, has not received the attention in America that is accorded it in several European countries. Although some believe it to be outside the province of the school for it to serve as the depository of children's savings, some form of practical lessons which will tend toward habits of thrift is badly needed in America. School savings banks can be made to furnish these lessons in an effective way. The idea of such banks originated in France, the paradise of small savings, and from there spread rapidly into such thrifty countries as Germany, Holland, and Belgium. Mr. John Thiry, a native of Belgium, in 1885, while he was a school commissioner of Long Island City, New York, introduced the plan in America. Through his instrumentality this system of teaching thrift was soon established in all the public schools of that city and gradually spread all over the country. Although such savings banks are not in the general use which they deserve, there are now 1149 public schools recorded as using the plan, with a total amount of savings registered of nearly \$3,500,000. As a large proportion of this amount would ordinarily have been spent for cheap candy and in some cases for cigarettes, these banks have been a means of conserving the welfare of their depositors.

But, more than this, they have taught something of the meaning and value of thrift. They have also enabled many persons to pay their way through academies and colleges, and while attending trade and technical schools. They have made it possible for boys to start small business enterprises of their own and for girls to buy their own clothing. In some instances they have given children the satisfaction of rendering financial assistance to their parents at critical times. But, possibly more than anything else, they have taught the lessons of self-denial for the sake of a greater future good which are so hard for young people to understand. The thrifty Franklin had as a favorite expression

"Deny self for self's sake," and these young depositors have had a better opportunity to do so than have the pupils in the schools where these banks have not been established.

Mr. Thiry died in 1911, leaving the leadership and the accumulated literature and records of the system to his associate, Mrs. Sara L. Oberholtzer, of Philadelphia. It is largely due to her efforts during the last 20 years that 265 schools in Pennsylvania have adopted the plan. This State, Massachusetts, Connecticut, and New York have the most of these banks, although recently San Francisco, Oakland, and Berkeley, California, have introduced the plan in a number of their schools.

Child Labor.

THE NEW CHILDREN'S BUREAU.—By far the most important general legislation affecting the welfare of young people during the past year was the creation of a Children's Bureau as a branch of the Department of Commerce and Labor. Miss Julia C. Lathrop has been placed at the head of the Bureau with a salary of \$5000 per year. The purpose of this bureau is not to exercise authority over the children of the country or to bring legal pressure to bear upon their parents. It is rather to serve as a great national intelligence office, or bureau of information, continually engaged in the kind of investigation and research work that will make clear the position and needs of the great number of children who are now practically without intelligent and sympathetic interest and care. The Bureau will pay little attention to well-fed, well-housed children except to include them in its general statistics. But it will concern itself specially with the less fortunate who are surrounded by conditions which retard physical development and which prevent them from getting an effective education.

There are four classes of children upon whose condition the Bureau is to turn its attention. These are (*a*) afflicted children; (*b*) dependent children; (*c*) delinquents; and (*d*) children at work. The child labor problem has already received a great deal of effective attention throughout the country. But this Federal bureau will undoubtedly make it possible to secure information that hitherto it

has been impossible to get; and it will undoubtedly be the means of securing more effective and uniform legislation for the protection of children from the ignorance and greed of parents and from the merciless actions of the employers of cheap and hope-destroying labor.

CHILD LABOR AND EDUCATION.—The National Child Labor Committee, which held its annual conference in Louisville, Ky., early in 1912, grouped its considerations this year around the above topic. As the Committee has been accused of doing only negative work, a great deal of emphasis was laid by its leaders upon the necessity of doing constructive work for children in the way of opening doors of real opportunity for them. Especially is the Committee anxious to coöperate in securing the industrial training and vocational guidance that will save children from being drawn into the "blind-alley" occupations which so effectively shut them out of the possibility of developing industrial efficiency. To show the immense number of youths who enter these blind-alley careers, it was affirmed that in New York city alone, of the 42,000 children between the ages of 14 and 16 who each year secure employment certificates, only a small percentage enter upon occupations with a hopeful outlook; the remainder take up forms of labor that after years of work leave the victim impoverished in money, health, and efficiency.

Nor is it safe to assume that the industrial training that may be given in the school before the end of the compulsory period, and the mere calling attention there to the various occupations with their remunerations, will prevent this great loss to human efficiency. Such an assumption is not borne out by the facts. Without careful vocational guidance and sympathetic interest, the great majority will still be attracted into the permanently unremunerative and hopeless callings. As one speaker said, probably the best effects of the vocational efforts of the school will be found in the way it enriches the curriculum and tends to retain the pupil in the school; because it so fills the school program with vital interest "that we shall soon find the school holding the child to the last possible moment, instead of, as now, losing him at the first possible moment." If the school can retain its pupils for a year or two longer than

at present, "it will render the highest possible service towards the solution, not only of the child labor problem but of many other complicated industrial problems."

The kind of employment for young people that was particularly emphasized was employment that both permitted and encouraged a continuance of the education, or as it was tersely stated the opportunity "to work instead of being worked"—employment with a view to education and not for exploitation. The compulsory attendance law must be made general and more effective; but that is not more important than that practical educational opportunity shall be made available to all young people whether they are employed or not. These continued educational opportunities were regarded as more important just now than that the compulsory age limit be raised to 16 years.

As a recompense for the small weekly salaries that the young wage earners can add to the support of needy homes, Commissioner of Education Claxton made the valuable suggestion that the waste spots in villages and towns might well be placed at the disposal of the school for such instruction and use as would enable these youths to contribute, through their garden products, more toward the support of the home than would accrue from their small wages if employed.

CHILD LABOR IN CITY STREETS.—The mental alertness of newsboys, and boys who spend much time in the city streets, is often referred to as if it exceeds that of other boys. This idea is refuted by Doctor Edward N. Clopper in his new work on "Child Labor in City Streets" (Macmillan Co.). From investigations made in St. Louis, Cincinnati, New York, and Cleveland, he proves that children who are at work out of school hours are more backward than the average child. In Toledo, out of 287 school children engaged in street trades out of school hours and the great majority of whom were newsboys, 55 per cent were backward; and 26.7 per cent of the retarded street workers were 3 or more years behind the normal age for grade. Of the 169 of these boys who were from 10 to 13 years of age, 61 per cent were backward, 38 per cent normal, and only 1 per cent ahead of normal grade. A similar study in New York city revealed even a larger per cent of backward pupils among the newsboys. As Dr. Clopper says, there no doubt are

other factors which contribute to bring about this condition of backwardness, such as poverty, malnutrition, and mental deficiency, but there can be little doubt that the distractions and exhaustive efforts of street work are in large measure responsible. Street work should therefore be included in the list of prohibited employments, at least for boys and girls under 16, where health may be injured or morals depraved. And it would be even better to follow the practice of Great Britain, which has had so much experience in such matters, and where investigating bodies have emphatically declared that "street trading by boys under 17 and girls under 18 should be absolutely prohibited."

Peace.

DOCTOR ELIOT'S WORLD TOUR.—Doctor Eliot, president emeritus of Harvard University, has returned from his tour of the world in behalf of the peace movement financed by Mr. Carnegie, and, according to the *World's Work* for October, reports that "international or national disarmament is not taken seriously by the leaders and thinking men of the more important peoples." Although he says there is a strong sentiment for it and that there is everywhere far less fighting and desire for war and a greater and more abiding respect for the institutions of peace, this is perhaps largely because of a natural growth toward a better civilization and a higher Christianity, and not so much due to any special peace propaganda.

This would seem to indicate, according to the comment of the editor, that "Universal peace, when it comes, will come as the result of a long and slow educational process, and by the increasing use of such peaceful machinery as the Hague tribunal. This is so far the one great definite contribution to the peace movement that makes a landmark in the long, slow rise from the barbarism of war. . . . Universal peace will come by the slow process of evolution—come by education and by the working of economic laws." As matters stand now, the men who have the responsibility of defending their countries and securing what they may regard as their countries' rights are evidently not yet ready to recommend a policy of disarmament.

COST OF WAR.—A recent bulletin of the United States Bureau of Education (Bulletin No. 8, 1912) pictures in a very forcible way the cost of war and how the fear of it is in reality encroaching upon the comfort and home life of the people of the great nations of the world. The bulletin states in part: "Since 1800 the war debts of the nations have grown by leaps and bounds. That of Europe as a whole amounts to more than \$26,000,000,000, bearing interest at the rate of \$1,150,000,000 per year. . . . All these endless caravans of ciphers represent sums which have never been paid, will never be paid, can never be paid, so long as the present system of national armament goes on. For practically the entire amounts now raised by taxation in civilized nations go into the support of armies and navies. The United States, in splendid isolation from old-world entanglements, without an enemy in the world, and bound by ties of blood and commerce to all civilized nations, spends 73 per cent of her income in this way. The civil or non-military expenditures of Europe are so small as to be negligible. . . . At the present rate of expenditure the four countries of Germany, France, Great Britain, and the United States, will spend in the next 40 years, the life of one generation, for the support of armies and navies, an amount sufficient to build 20,000,000 country and village houses at an average cost of \$2500. With father, mother, and four children in each of these houses, they would furnish homes for 120,000,000 people, which is more than the total present population of these four countries living in villages and the open country. Thus the fear of war is consuming the homes of the rural and village population of these great nations in a single generation. It is estimated that the total direct cost of the armies and navies of the world each year in time of peace is \$2,500,000,000, which equals the total valuation of the wheat and corn crops of the whole of the United States."

No wonder so many people are interesting themselves in securing a halt in the extension of armaments and of the general preparation for war, especially on the part of nations that should serve as an enlightened example to others.

WAR AND PHYSICAL VIGOR.—An argument against war is contained in the statements of Professor Vernon Kellogg, of Leland Stanford University, before the Congress of Eugenists recently held in London. Nothing, he declared, could be more disastrous to the physical strength of a people than such a cause, which deliberately selects the most robust, carries them away from home, prevents them from imparting their physical vigor to children, and returns them, if at all, maimed, diseased, and physically exhausted. Although it is claimed, and probably justly, that military exercise and discipline are beneficial to most men, this is true only so long as they are not engaged in actual war. And the same exercise and discipline directed into channels that are not destructive would be far more efficient for the physical welfare of the country. There is abundant evidence of a greatly lowered birth-rate and of weak and undersized children as the result of any severe or long-continued war.

THE CARNEGIE PEACE FUND.—The trustees of the fund of \$10,000,000, donated by Mr. Andrew Carnegie to the cause of universal peace, find that they will have about \$500,000 at their disposal each year. They have planned and are endeavoring to carry out three kinds of work.

1. Under the Division of International Law, with Doctor John Bassett Moore of Columbia University in charge, a complete collection of international arbitrations will be prepared and published. The purpose of this will be to establish a basis, from precedents, for future arbitrations. By systematizing arbitrations and reducing them to clear statements it is hoped that diplomats and arbitrators everywhere will receive suggestions and assistance. Professor Moore also purposes establishing a summer school of arbitration at The Hague.

2. The second division is that of Economics and History. It is under the direction of Doctor John B. Clark, also of Columbia University. This division, during a meeting of some twenty distinguished economists and publicists held at Berne, Switzerland, in the summer of 1911, arranged an extensive program of subjects for consideration, such as: international loans and the complications that have some-

times followed them; the position of organized labor and the Socialists on such problems as armaments; the effect of war on food supplies, banking conditions, and the like; the burdens of maintaining armies and navies and of supporting the pensioners resulting from war.

3. The Division of Intercourse and Education is the third and in some respects by far the most important. As its purpose is to educate the public opinion of the world toward universal peace, the plan and scope of its work is not so easily defined. It is in charge of President Nicholas Murray Butler, of Columbia University, and maintains a bureau at Paris with an advisory council of distinguished men from the several nations already actively interested in the problem. It aids the international peace bureau at Berne and a similar organization at Brussels, and is now endeavoring to bring about a better understanding and a closer relation between the countries of South America and the United States and between Japan and the United States, by interchange of lecturing professors and in other educational ways.

The importance of this work of international intercourse and education becomes apparent when one thinks of what controls the forces that make for peace or for war. As an editorial in the *World's Work* for February says, so far as individuals go, it is the great rulers and their cabinets and advisers and the great bankers of the world upon whom they must rely for "the sinews of war." But "Behind them are strong, blind forces—such as the pressure of German manufacturers for wider markets and the clash in those markets of German and English trade; and such as the increasing population of Japan that requires and will continue to require more room. Peace meetings and the codification of arbitrations and careful study of economic facts do not touch these strong, blind forces with directness." Men must be made to think. War must be put in its true light as a destroyer of treasure, morals, and life. It must be robbed of its old-time glory. But above all a truer and humaner conception of civilization must be developed. There must be education away from the primitive fighting instincts. While the whole Carnegie peace program tends in this direction, the friendly intercourse and educa-

tion of the nations in better things furnishes the most hopeful promise for universal peace.

THE HAGUE COURT.—The completion of the Palace of Peace at The Hague calls renewed attention to the Hague Court, which has for its purpose the settling of international disputes by arbitration. The Hague Court was established in 1902, following the epoch-making Hague Peace Conference of 1899, which authorized its creation. The method of procedure in making use of its good offices is as follows: The Governments involved may ask for and establish, for consideration of the controversy, special tribunals, joint commissions, or refer the case to a single arbiter of their own choice. But, if they choose the Hague Court, they must select the judges for the arbitration from its general panel or list. This list or panel of Hague Court judges is made up of persons appointed for a period of 6 years by the Powers signing the arbitration agreement. Each may contribute to the extent of 4 persons, and altogether they compose what is known as the Permanent Court. From among these members each party in dispute chooses one to act as arbitrator. The two arbitrators choose a third person as an umpire. If they do not agree on a choice, each of them proposes two members of the Court, exclusive of course of their own members, and from these four an umpire is chosen by lot. The umpire presides over the tribunal, which renders its decisions on the basis of a majority vote. Eleven cases of dispute, any one of which might have led to serious consequences, have already been settled in this manner. A twelfth dispute is now before the Court. It is between France and Italy concerning the seizure of three French ships during the Turco-Italian War.

THE PEACE PALACE.—The Peace Palace at The Hague, Holland, which was presented to the nations of the world in behalf of the cause of universal peace by the Hon. Andrew Carnegie, was completed during the year. This wonderful building, which cost \$12,500,000, contains great audience chambers, salons, corridors, council-rooms both large and small, as well as complete suites for the accommodation of distinguished guests. It has every modern convenience and has been made as beautiful as liberal expenditure could make it. It has been suggested that this new

Peace Palace should be made the permanent home of a board of consultation, or court of international law, made up of famous jurists and statesmen from the great countries of the world, to sit as a board of judges or as arbitrators on all questions of international dispute.

THE PEACE CENTENARY.—The end of a century of unbroken peace between the two great English-speaking nations of the world, in 1914, is a matter of such tremendous import that full preparations for the event are well under way on both sides of the water. On the part of Great Britain it is now proposed to erect a statue of Washington in Westminster Abbey and to purchase Sulgrave Manor in Northamptonshire, the ancestral home of the Washington family, and to maintain it as a place of pilgrimage for all who are interested in the history of English-speaking people. As this ancient building has over its doorway the Washington coat of arms which suggested our Stars and Stripes, Americans would undoubtedly regard this act of England as a doubly gracious one, honoring both the great leader in peace and war and the emblem whose significance he did so much to establish. On the part of the United States it is proposed to erect a statue of Queen Victoria in Washington, of the Earl of Chatham and Edmund Burke in appropriate places, and to build a free international bridge at Niagara Falls for the ready exchange of commerce and good will between this country and the great English colony which is our neighbor on the north. An interesting program of historical study of the Century of Peace is also suggested for the schools in the autumn of 1914.

The Nobel Prizes.

The Swedish scientist Alfred Bernhard Nobel, who died in 1896, left by his will a large part of his fortune to be devoted to the encouragement of science and literature and to the promotion of peace. The bequest provides for five annual prizes, valued at nearly \$40,000 each, to be awarded, without distinction of nationality, for the most important discoveries in physics, in chemistry, in physiology or medicine, for the most distinguished work of an idealistic character in literature, and for the best effort of a

person or a society in behalf of the promotion of peace and the brotherhood of man. With the exception of the last, the prizes are awarded at Stockholm upon the decisions of the Swedish Academies. The peace prize, however, is awarded at Christiania by a committee of the Norwegian parliament.

The 1912 prize for literature was awarded to Herr Gerhart Hauptmann, the German novelist, poet, and dramatist, whose later literary efforts have been marked by a high degree of dramatic and poetic idealism. The 1911 prize in literature went to Maurice Maeterlinck, and the 1910 to Paul Heyse. Doctor Alexis Carrel, of the Rockefeller Institute for Medical Research, was granted the 1912 prize in medicine. This is the first time that the medical prize has come to this country, it being awarded to Doctor Carrel for his researches during the past two years, which have demonstrated the possibility of continuing the growth and activities of living tissues and vital organs after they have been removed from the body. The first Nobel prize to come to this country was awarded to President Roosevelt, in 1906, for his efforts in behalf of peace between Russia and Japan. Professor A. A. Michelson, of the University of Chicago, was awarded the prize for physics the next year (1907).

CHAPTER VIII

SOCIAL PROBLEMS (*Continued*).

Morals and Religion.

AN ANCIENT EVIL.—Under this heading an editorial in the *Outlook* for May 18 discusses the form of vice which has, in the past, been regarded as an unfit subject for public consideration, and knowledge of which must absolutely be withheld from young people. "The tacit understanding among respectable people that certain forms of vice are to be kept from the knowledge of young women and to be ignored in public discussion is the last surviving trace of the ancient heresy of the inherent vileness of the body and its appetites. Children who are to feel the tempestuous force of passion are left in dense ignorance of its nature, and allowed to receive their first knowledge of the great and sacred functions of the body surreptitiously, and in forms which are vulgar if not corrupting. Girls are sent to great cities to earn their living in dense ignorance of the moral dangers which will surround them; left to walk along paths so perilous that a single false step may commit them to a life of shame. It is a terrible fact that the ranks of the unhappy women who sell, not their time or labor, but themselves, are augmented by the silence of unwise mothers, whose false modesty sends their daughters to the awful fate of the prostitute.

"The stupidity of giving boys and girls the most careful training of brain and taste and muscle, and ignoring instruction in the matter most vital to their health of body and of soul, would be inexplicable if one did not remember the false ideas of modesty in which so many people have been bred. To leave young people in ignorance of the forces and laws of the physical life is a crime on the part of parents. This knowledge ought always to be given by fathers and mothers; it is almost impossible to give it wisely through books, though a few books convey it without dan-

gerous suggestion. A great step is being taken in the schools which teach sex hygiene, although even this step is being fought by the ignorance of good people. But this does not relieve fathers and mothers of one of their great responsibilities. A physician was once asked why a beautiful young woman had died. He answered promptly, 'Because her mother was too refined to be intelligent.'

"Not only has this great mystery of passion been profaned by ignorance, but it has been tacitly agreed to ignore the awful results of that ignorance augmented by the evil of lawless men and women. There has always been in every society a vast pool of vice; and respectable people, instead of trying to drain it, have walked around it with averted faces. The horror of it has been known only to a few because the great majority have shut their eyes. . . . There exists in every society a group of women as completely cut off from all kindly human intercourse as if they were lepers, and as completely isolated as if they were behind prison bars. Here and there good women have made brave efforts to help isolated victims of this terrible evil, but society has come to accept the existence of this death-breeding swamp as part of the order of things, and the women who sell themselves as too vile to be saved."

Miss Jane Addams maintains, in her book on the subject ("A New Conscience and an Ancient Evil"), that it is the business of the church to guard and cleanse the popular means of amusement, which are throwing so many young people under overwhelming temptation, and to provide for the expression of the natural desire for pleasure in boys and girls; to change the irreligious and unforgiving attitude of society toward the women of the streets; and to put an end to a policy of secrecy which is hypocritical and ineffective, and which makes good women the blind helpers of this terrible business by the barrier which they erect against the woman who has once yielded to temptation.

The innocence which makes girls victims before they understand what they are losing is one of the decisive facts which Miss Addams urges as an appeal for a new charity toward these unhappy women: "A new publicity in regard to the social evil," she says, "is the striking characteristic of the last decade. This publicity has disclosed that thou-

sands of the so-called fallen women are piteously young, and that thousands of others lost their chastity when they were helpless, unthinking little girls, many of them violated by members of their own households in that crowding which life in a large tenement postulates."

Excessive fatigue in shops and factories, underfeeding, loneliness, the desire for companionship and pleasure which is strong in all normal young people, the unguarded dancing places, the miscellaneous excursions, the unwatched amusement parks, are among the open gates through which an army of girls pass without knowing whither they are going; and in blind ignorance they take that first step which lands them in the underworld whence escape is almost as difficult as from prisons of stone. The thought of the girls whose unguarded innocence makes it possible in a brief hour to blacken their natures and condemn them to a life of infamy, ought to shame good men and women out of their sham delicacy of feeling in dealing with this evil.

The Church as a Social Centre.

A significant trend of modern religious work was indicated during the discussion of "Present Day Problems" during a notable gathering of Sunday-school workers in Philadelphia in the early fall. The interest centred especially in the two topics: Shall the Sunday-school become an important factor in social service work by remaining open seven days of the week? and, Shall moving pictures be adopted as an adjunct of Sunday-school work? H. J. Heinz, president of the convention, touched the heart of the topic when he asked the question, "Would any business man think of running his plant one day out of seven? His business would not make much progress at that rate. No; he runs his plant on full time and gets the best results out of it. Let us conduct our Sunday-schools on business principles."

Marion Lawrence, one of the most efficient Sunday-school workers in the country, and who presided at this part of the conference, called upon Sunday-school superintendents in all parts of the convention church to stand and tell what their schools are doing for the community

on week days. A delegate from Pittsburg gave the following testimony: "I am from the Shady Avenue Presbyterian Church. Our Sunday-school is thrown open to the public every night in the week. On winter nights we have a big sign over the door, which reads, 'Come in and get warm. Coffee and sandwiches served. You must not pay.' We have clubs and a gymnasium for young people. The Sunday-school is a great social centre in our community."

"I wouldn't be surprised if the churches take hold of those moving pictures and use them for their own work. We are coming to it," declared Mr. Lawrence. "Friends, there is no more important question before this convention than this one of bringing our young people to look upon the church as a social centre. We have allowed our young boys and girls to be taken by the world. The time has arrived for us to reclaim them by strengthening the social life of the church. Keep your Sunday-school rooms open on week evenings. Make a beginning by opening a reading-room, or a rest-room; but make a beginning. Make the church an attractive social centre and the boys and girls will become interested in church work. The boys will attract the girls, and *vice versa*."

In all parts of the church, Sunday-school superintendents arose and told of the program of week-night meetings their Sunday-schools are conducting. Some have literary societies, some gymnasiums, some rent vacant buildings and equip them as club-houses. Others open one or two of their Sunday-school rooms on week nights, under proper supervision, for the recreation of boys and juniors. And all these churches reported an increased enrollment of men and boys. More than one delegate, upon hearing these reports, determined to go home and inaugurate a new era of Sunday-school activity.

CHAPTER IX

SOCIAL PROBLEMS (*Continued*).

Civil and Political Problems.

THE TEACHING OF CIVICS.—An attempt to define the good citizenship which should be the definite aim of the teaching of civics, reveals the fact that it means far more than mere knowledge of civil and political organization methods and the study of history. In a contribution to *Education* for March, Doctor Edwin S. Todd, of Miami University, maintains that the real aim of this instruction will never be realized until the pupil is taught: (1) to appreciate his environment; (2) to sympathize with that environment; and (3) to complete the process of socialization by adapting himself to that environment. Doctor Giddings defines this civic socialization as "that process by which we get acquainted with one another, and thereby establish sympathies and friendships, learning to enjoy association and discovering how to coöperate with one another in our work."

Doctor Todd claims that we fall short of this result in our instruction largely because we do not conform to the ideal of this present age—we miss the spirit of the environment in which the pupil lives and tempt him to regard our teaching as hollow, unreal, and impractical. The civic ideal with which our present instruction must fully square is the economic ideal. "The economic ideal has already profoundly colored and modified every phase of life." Social forces whose workings we do not yet clearly understand are fast ushering in this ideal, and our instruction must accord with it if we would have it appeal to the pupil as something real and vital.

During the two centuries following the discovery of America religion was the centre of thought, and the efforts of democracy were in the direction of finding expression

in the field of religion. For the following two centuries the ideal was a political one, and the questions of political science or civics centred around the relations of the separate commonwealths to the central authority and the nature of the right of suffrage. Beginning with the early eighties we entered upon "a period where democracy has its work in finding expression in the field of the economic." The Civil War and the reconstruction periods established the fact of National sovereignty and the idea that the rights of the individual are not always inalienable. Ohio is not a State but the subdivision of a State. The welfare of the individual is bound up with the welfare of others in the organized society of which he is a part. And in our educational ministrations we now have to consider, in connection with all civic questions, how they are apt to affect the welfare of the whole people. According to this ideal our instruction must now take the form of vigorous efforts to make our youth first intelligent citizens; secondly, useful citizens; and thirdly, citizens who appreciate all civil and political questions in their larger relations to the State and to others—and all this that they may finally become not only cultured citizens but moral and righteous ones as well.

Unjust Political Criticism and its Effects.

In view of the fact that our whole governmental policy is under attack, and is likely to remain so for some years to come, the words of Senator Root of New York should receive thoughtful consideration by every loyal American without regard to party affiliation or political preference. "Our whole system of constitutional freedom and order is attacked. It will go down unless actively supported by those who believe in government under the restraint of declared principles as opposed to the sway of impulse—the rule of law rather than the rule of man."

It is so easy to arouse antagonism and to cloud issues in times of economic tension or great political excitement that men's judgments are apt, at such times, to be warped and their actions hasty, sometimes even unjust. It not infrequently happens in the administration of public affairs that the *one* is right and the *many* are wrong, that a hopeless

minority has been wiser in its views than the triumphant majority. Hence, the overshadowing issue in all matters of grave public concern is to establish and maintain the kind of restraining influence and safeguarding that tends toward discussion, deliberation, and a wholesome delay. And all legislation that makes possible hasty action by an impatient popular will merely plays into the hands of those who have ulterior motives concealed beneath their fervid professions of devotion to the political, social, and moral uplift of the people. Our ancestors were wise in accepting the teachings of history as to the dangers of entrusting unrestrained power to a single person, to a single body, or even to the direct desires of the majority. They also showed commendable foresight in intrenching this wisdom in constitutions and constitutional provisions that cannot lightly or easily be changed.

The Spread of Socialistic Views.

The great changes going on in the industrial world are almost imperceptibly modifying our whole social view. Even the most conservative find every once in a while that, notwithstanding their refusal to accept the demands of the great social unrest which is everywhere evident, they have drifted with the tide of affairs and are accepting things which they had determinedly opposed. The demands of this unrest are affecting not merely financial regulations but also our political and social ways, and it is operative everywhere where industry is an important factor in the life of the people.

The United States during the past year experienced turbulent unrest in the Lawrence mills and in the mills of Passaic, in the coal fields of Pennsylvania and in San Diego; France saw the rise of a great Syndicalist movement; Germany was alarmed by the great increase in the vote of the Social Democrats; and in England so determined were the coal strikers and their friends that a minimum wage law was enacted for the entire coal industry. The latter marked an almost revolutionary step in a conservative country like England, and, taken into account with the Old-age Pension Act and Lloyd George's "revo-

lutionary" budget, reveals a change in sentiment in its people that would have seemed impossible ten years ago. In this country our fundamental laws and even our judiciary were the objects of severe arraignment. And the remarkable thing to the conservative mind is the fact that these great socialistic changes seem to be accompanied with increased prosperity. Whether this has been due to an increased demand for more effective industrial and business methods, or to a substantial gain in economic and social progress, remains to be seen.

In commenting on the English situation the *Boston Transcript* has said: "Our friends the Socialists have always been ridiculed for their pet claim that it is the business of the government to spread happiness and plenty among the people. Yet here, in a country the very quickest of all to foam at the very word Socialism, is a string of acts each having as its tacit side-issue the partial redistribution of wealth and the spread of happiness." As Germany has already adopted even more paternalistic measures, the *Transcript* asks whether the time has not come for us "to frame slightly larger conceptions of government than we have been holding."

CHAPTER X

SOCIAL PROBLEMS (*Concluded*).

Education in the South.

FEUDS AND EDUCATION.—An effective cure for the deadly feuds and the defiance of law that, within recent months, have been attracting attention to certain mountainous regions in the South is found in education. Not only do ignorance and superstition disappear before it, but interdependence, social responsibility, and the submergence of self and selfish interests into the welfare of all are pressed home upon the minds and the hearts of all who become real learners. The petty feuds of life are soon lost sight of in the bigger vision that education promotes.

An excellent illustration of this is being furnished by J. A. Burns in the Oneida Institute, which he founded in the very heart of the feud region in the mountains of Kentucky. Oneida is forty miles from a railroad station, and Mr. Burns, who himself was at one time involved in these feuds, could not at first secure help in his determination to bring better conditions as well as better feeling into the life of these people. His story is well told in the *Christian Herald* of March 27. "He begged a landowning cousin for an acre of ground and was refused. Then he succeeded in convincing a few Oneida citizens, and a board of trustees was at last organized. The first meeting was held in an old mill-shed which was full of bullet-holes from former battles, and the board itself was made up of two warlike factions of an ancient feud. Many at this first meeting were face to face with old enemies, and glared at each other while Burns was making his appeal. But the incorporation was effected and the enterprise was launched, though without a dollar in sight. Its single asset was Burns' inflexible faith and earnest purpose. The only help he could get from the trustees was their promise not to fight while he was building the school-house, which was a big concession; but they would not contribute a foot

of lumber nor an hour of work. It is sad to be compelled to record the fact that the promise to keep peace was forgotten. Before the building was finished the feuds had claimed more victims.

"To organize a school board and incorporate an institution was one thing, but to build a house without land or money was quite another. Burns was master of the situation because, back of all opposition, he had the one great abiding purpose to open the door of opportunity to the Kentucky mountaineers. He wanted to destroy the feuds, and he meant to do this by awakening the people to a recognition of their higher destiny. How well he did his work is best told by the six hundred students who are now a living monument to his well-directed energies in Oneida Institute."

At first Mr. Burns worked alone, but soon his earnestness and determination overcame opposition and won friends for his enterprise. Then both friends and donations came, and a building was soon ready that accommodated 100 pupils and 3 teachers. That was 12 years ago. Now the Institute owns 1350 acres of land, 200 acres of it being rich river bottom land which produces ample supplies for the large number of resident pupils now enrolled, while on the near-by mountain slopes are ideal facilities for raising live stock. There are now 15 teachers in the school. But what is still better, Mr. Burns has opened an adjunct school 15 miles from Oneida and he is proposing a series of associated schools to be scattered throughout the mountainous regions of Kentucky.

As such territory forms one-third of the area and contains one-fourth of the population of the State, the importance of the movement can be seen. The testimony from all sources is that Mr. Burns has transformed the Oneida region into a law-abiding and morally uplifted country. The feud spirit has disappeared with the elimination of ignorance and superstition and a spirit of brotherhood has taken its place. This is one of the most remarkable concrete illustrations of the value of education to the State, to society, and to separate individuals that has been furnished within recent years.

A DEPLORABLE TENDENCY.—A deplorable tendency in regard to the status of the negro has been developing within

the last few years. This tendency is manifesting itself especially in the form of excluding him from many of the lines of honest employment which he formerly filled, and without regard to his actual capacity for doing so with ability and fidelity. Strange to say, this feeling against the negro has been most insistent in the North, where formerly the negro found his strongest advocates. An editorial in one of the most prominent newspapers of the country states: "There is, perhaps, not a branch of labor which welcomes negroes to-day which did not as freely welcome them twenty years ago. On the other hand, there is scarcely a branch of labor which welcomed them twenty years ago which is not gradually excluding them to-day. For example, within the last three years at least five of the larger hotels and cafés of Philadelphia, which, in the main, had never before employed other than negro servitors, have dismissed their negro in favor of white help, while other local establishments have gone to the disquieting extreme of advertising the fact that they do not employ negro servants. New York city, Atlantic City, Providence, R. I.; Detroit, Mich.; Portland, Ore.; St. Joseph, Mo.; Chicago, Ill., and one city after another are falling in line with this movement to do away with negroes as hotel and personal servants; while the broader avenues of labor, such as shops, mills, foundries, factories, steam and street railways, mercantile and business houses throughout the North already exclude them almost completely."

The causes for this antipathy are probably not far to seek. The negro has not been conforming to the increasingly high standards of civilization. His code of morals has been regrettably weak and he has been truly charged with dissolute and even criminal habits that have entirely too often made him a menace to society. Fortunately, there are many exceptions to this rule and there are abundant evidences of more worthy things developing within the race. The trouble is that the public is apt to judge in such matters upon the basis of the poorest product rather than the best. As Holmes years ago said about his "One Hoss Shay," it is the weakest link that must stand the strain. It is therefore exceedingly important that the friends of the colored race, and the colored race itself,

strengthen up this "weakest link" and lead forth the qualities that command respect. One of the best places to do this would seem to be on the farm, for the colored race is exceptionally close to nature and peculiarly adapted to tilling the soil. But the whites must also accord fair treatment, as well as other forms of help, to the negro. His hope lies largely along the lines of economic betterment. Anything which forces him to, or keeps him in, a low level of daily living merely affords opportunities for, and accentuates, his undesirable qualities.

The white people of this country have a peculiar responsibility resting upon them in regard to the colored people. They are still in many respects a dependent race and therefore deserve guidance and help. If these are not accorded, the force of their Constitutional right to become a free and equal people will be largely nullified. As the daily above quoted states in regard to the tendency to discriminate against the negro: "The American people will one day hang their heads in shame at having been parties to any such wholesale oppression and repression of a people who are so intricately linked with the destinies of this nation."

NEGROES AND THE URBAN MOVEMENT.—The movement toward the cities is not confined to the whites alone. The *Outlook* for June 29 calls attention to the fact that the dreaded scarcity of rural labor is already occurring in portions of the South because negro families are being attracted to the cities. This movement is attributed partly to their desire for education, but is due more largely to the ease with which more money is made in the city and to the attractions of its social and amusement life. "For a large part of the year there is no work obtainable in the rural districts. A cotton-picker makes from 50 cents to \$1.50 a day, according to ability, but the season is short. At other times, when he can get work, the laborer receives not more than 50 cents a day. In the city he can easily make \$1.50 a day, and he can work 6 days in a week." Besides, he can live almost as cheaply in the city. "His wife generally takes in washing or goes out to cook, in the later case bringing home the proverbial basket of food at night. He has his churches, theatres, moving-picture shows, and the society he craves.

He soon urges his country friends to join him in the city. So the urban movement gains force year by year. Only the negroes who own their own farms are willing to remain in the country."

But now the other side of the question. "Unfortunately, sanitary conditions in the negro sections of the towns are bad, and the mortality is very high. A race accustomed for generations to the pure air of the fields wastes away in the impure air of the cities, unless the surroundings are good. It is not unusual to find as many as five negro families crowded into one house. This breeds immorality. There is a tendency also not to do more work than is necessary for a mere living. It is estimated that 20 per cent of the negro men in Charleston have no regular work and will accept none." It is no wonder therefore that the better classes of the race are fighting this shiftlessness which is disastrous in so many respects.

Although the movement toward the cities may be benefiting the negro in material respects, it is undoubtedly true that he can live a more healthful and moral life under proper rural conditions. The whites are meeting the loss of negro labor in the field by machinery and intensified farming. Large plantations are giving way to small farms, some of which are being taken up by negroes. And it may be that the strong counter-influences which are developing through the improvement of rural schools and the popularizing of agriculture may eventually check this tendency toward urban life.

TUSKEGEE INSTITUTE.—The trustees of this institution, which is located at Tuskegee, Alabama, are endeavoring to increase its endowment fund to a sum which will render unnecessary the special efforts of its distinguished president, Booker T. Washington, and his associates to secure needed funds for its maintenance. Doctor Washington sees the time approaching when he can no longer take an energetic part in the welfare of the institution, and it is his great desire to see it so well endowed that the possibility of continuing the work will not be hampered and threatened by the lack of regularly guaranteed funds. His appeals in this direction should bring a liberal response, for he has inaugurated and directed a work at Tuskegee which indi-

cates that with rare educational insight he has seen and fathomed the needs of his race and has worked out a thoroughly effective scheme for their educational regeneration, while at the same time he has furnished the most practical solution of the entire negro problem. Not only has Doctor Washington found means of vitalizing theoretical education for the mentally backward colored people, but he has also found the best means of elevating them to a higher moral and social plane through the consciousness of individual worth that comes from the ability to compete on equal terms with the white race for the work of the community as well as for the material wealth of the community. This he has done through associating with the mental work trade schools that are models of their kind.

The definite object of the whole institution is to train workmen who are so competent and reliable that they will both dignify the work and the workman no matter how menial the service. In fact there can be no *menial* service for those who have fully profited by the training and spirit of Tuskegee. No effort is made to teach the professions; the energy of the institution all being placed upon training for agriculture, gardening, dairy-farming, carpentry, wagon-making, blacksmithing, brickmaking, as the most promising life for men; and for women, housekeeping, cooking, dress-making and millinery. That the work is being well done is shown by the demand for Tuskegee graduates and by the prosperity of the large percentage of them who have become self-respecting and well-respected property owners.

The *Outlook* for March 30 tells of a recent visit to Tuskegee and of some of the interesting and practical ways in which the course of study there is realized. The visitor found the students of arithmetic working out on the blackboard problems involving the plastering of one of the recitation-rooms of the institution; a class in geometry was demonstrating the scientific method of attaching the shafts of a cart to the cross-bar so that the cart would pull straight; a class in grammar had gone out into the truck garden and brought back into the recitation-room ears of corn and heads of cabbages, and were writing properly constructed sentences concerning them on the blackboard; the students in the chemical laboratory were analyzing soils and the clay

from which the bricks used in the Tuskegee buildings were made; and the pupils in the geography class had before them some of the products of Japan and of the part of Alabama where the institution is located, and were being taught why these products are exchanged and the various commercial routes used in the exchange. So well was the work being done that the visitor "wished that grammar, geography, arithmetic, and geometry might have been taught to him in this human and absorbingly interesting fashion." That Tuskegee Institute has already won a high place among the educational institutions of the country is indicated by the active interest taken in its work by prominent men in the North and in the South, and by the fact that the former president of Columbia University, Mr. Seth Low, is the president of its board of trustees.

THE JEANES FOUNDATION.—Miss Anna T. Jeanes, of Philadelphia, April 23, 1907, placed \$1,000,000 in charge of a board of trustees to administer in securing better rural schools for the negroes of the United States. The trustees organized in February, 1908, and elected Doctor James H. Dilliard, of New Orleans, as president. The board is at present endeavoring to carry out in a practical way the desires of Miss Jeanes along the following lines:

1. Funds are supplied to a county or parish superintendent with which to employ a trained industrial supervisor of negro work in his county or parish. This director is instructed not only to supervise industrial work already established but also to introduce it wherever it may be deemed advisable. Efforts are also made to interest the people in better school-houses and school-grounds. The employment of these supervisors is generally known as the Henrico Plan, because it was first used in Henrico County, Va.

2. Teachers are employed to do extension work in the schools within easy reach of some central school which they use as their headquarters. This plan gives closer supervision and more immediate help to the regular teachers.

3. A third plan has been to put a man into a county and set him the task of creating a more intelligent public sentiment for the betterment of rural schools and country

life in general. He is also expected to supervise the teachers and to organize them for self-improvement.

What is being accomplished is well indicated by a report made upon the work of one of the most successful of these industrial supervisors. "He commenced at once (in the county to which he was assigned) to organize in each colored school visited a school improvement association, co-operative corn and cotton clubs and, where the school children and patrons cultivated the grounds, gave lessons in agriculture and got them to agree that the proceeds arising therefrom should inure to the benefit of the school in equipping the same and in extending the length of the school term. . . . The school-yards have been cleared off and planted in trees and flowers, corn and cotton clubs organized and work done on the little farms, and manual art and domestic science introduced into most of these schools, where wood work, raffia and straw basket making, and sewing are being learned by the children, who seem cheerful, industrious, and making progress, while this work does not seem to decrease their interest in books."

It should be added that the general interest brought about by his work in this Alabama county has already resulted in a lengthening of the school term two and in places even three months, in the establishment of an annual county colored fair, and in a social contact and community co-operation that promise only the best results.

PART VI

CHAPTER XI

FOREIGN EDUCATIONAL INTERESTS.

Argentina.

BUENOS AYRES has set an example in business enterprise that may well be copied by many older and presumably further advanced cities. Realizing the importance of the opening of the Panama Canal as an opportunity for world-wide trade expansion, it has decided to spend \$40,000,000 upon the improvement and enlargement of its port facilities. What this may mean in the way of stimulating trade, industry, and the general welfare cannot easily be estimated. That it will give this port facilities for docking and handling freight which will make it exceptionally attractive to the unattached ("tramp") steamers, in which the great bulk of the world's commerce is now carried, is evident. The ports that afford the best and quickest means of changing cargoes are the ones these steamers will frequent, because each day saved in this way tends toward the opportunity for additional voyages during the year and therefore toward extra earning capacity. And increased business for the port should tend to a prosperity and progress that should be reflected in the schools for its people.

Australia.

HOW IT CARES FOR ITS POOR CHILDREN.—In the *Contemporary Review* for October, Edith Sellers gives a most interesting account of what South Australia has been doing for its children. Until in the early eighties South Australia regarded and treated its destitute children as little paupers. But realizing through the rapid spread of pauperism that this form of relief was causing the very trouble they desired to cure, the government passed the excellent law of which Miss Sellers speaks as follows:

No matter now how poor or degraded a child is, he or she does not rank as a pauper and may not be lodged in a pauper institution to suffer the degradation of such a life. In fact, normal children may not be lodged in any institution but must be provided for in homes, "just as they would be were they being provided for by their own parents, instead of by the state." They must also be brought up in the country amidst wholesome surroundings and where they may have a chance to lead free, happy human lives. There is a State Children's Council which is virtually a government department that takes care of their relief. This council appoints local committees to act as care-takers of these children and to see that they are properly housed, clothed, and fed, and that they attend school regularly, and are treated kindly. The council can take under its care any child who is unruly, a truant, or a beggar, or any whose parents are vagrants, drunkards, or criminals, or who have forfeited their claims to their children by allowing them to live in unwholesome surroundings. Of any such Miss Sellers says, "His children are lost to him until such time as he can prove that he has changed his ways and may be trusted to bring them up properly."

A child is boarded out under a subsidy system until it is 13 and then on a service system until it is 18 or in the case of certain girls until 21. "Under both the subsidy system and the service, the council's wards are lodged with respectable working-class foster-parents, who, in the case of subsidy children, must live within easy walking distance of a good school." The laws are stringent in dealing with those who deal neglectfully or wrongfully with these wards of the state. During the service period, which begins at 13, the child practically becomes an apprentice, and pay must be given for its services. If a boy, the foster-father must be a farmer or a skilled artisan, and part of his wages must be turned over to the council, which deposits it for him in the savings bank. The foster-mother of a service girl must teach her housewifery, how to cook, clean and wash; she must teach her also how to make her own clothes; perhaps, too, if she can, how to trim her own hats. "The law requires her not only to turn the girl, so far as she can, into a good servant, but also to fit

her to be a good citizen, a good wife and mother." These arrangements have been working admirably for both girls and boys, and South Australia is accomplishing its set purpose of having no paupers in the land. Instead of pauperizing the children she is turning them into self-respecting, self-reliant, thrifty, hard-working men and women.

Belgium.

MOTHERHOOD INSTRUCTION.—Although the social and economic conditions of the poor in Europe are far less favorable than in the United States, the importance of surrounding motherhood and early infancy with proper conditions is well recognized there. Where so many of the men are needed for the army and where the industrial competition is so severe, motherhood must be protected and infant life not unnecessarily endangered. With the wider entrance of woman into the industries, and with her increasing social and economic importance, is coming a recognition of the fact that in the protection of the mother lies much of the welfare of the nation. The welfare of the mother and that of the child are so inseparable that consideration of the health of one necessarily involves interest in the hygienic care of the other. Europe has fewer free hospitals than America, but there are a number of institutions which have for their specific purpose the combined care of mothers and their babies.

One of the best of these institutions is Doctor Miele's *Œuvre d'Assistance Maternelle* in Ghent. A large part of the population of this city is employed in textile mills. Many married women are employed in the factories, where the hours are long, the wages low, and the infant death-rate correspondingly high. An article by Theodate L. Smith in the *Pedagogical Seminary* for March states that until ten years ago about a third of all the children born in Ghent died before completing the first year of life. "In 1910 Doctor Miele set himself the task of devising some means of checking this waste of infant life, due in large measure to poverty, ignorance, and oppressive social conditions." His plans have been worked out mainly along the following lines: 1. He established a free clinic for mothers and babies

in which advice and treatment for both sick and well were offered. 2. It being difficult to procure pure milk in Ghent, and when procurable being too dear for many mothers to purchase, he secured the interest and aid of the Bureau of Charities which receives appropriations for its work from the city. Through this bureau milk is furnished free to those who are too poor to pay for it. 3. The work of instructing mothers is carried on in the dispensary by means of special health talks illustrated by lantern slides, as well as by the individual suggestions and criticisms that are made in connection with any professional advice that may be given. These talks, demonstrations, and suggestions indicate the proper method of bathing a baby and all the various processes necessary to its physical welfare. Occasionally there are exhibitions of hygienic baby clothes of a very cheap and simple character and a display of cheaply constructed cradles or bassinets made of fruit-crates and other inexpensive materials. "Mothers, who have visited the dispensary long enough to learn how to care for their children, visit others of their own class, passing on the instruction and, in time of need, helping those with sick children." 4. A very important section of the work consists of a course given to girls of 14 to 18. This consists of a simple course in anatomy and physiology, practical courses in the preparation of sterilized milk and infant foods, practice in the dispensary work of weighing infants, making charts and keeping temperature and other records, and finally a course in the crèche where each pupil has for a time the entire charge of a baby.

The Kaiserin Auguste Victoria Haus in Charlottenburg, a suburb of Berlin, does somewhat similar work for mothers and infants. But it is more of "a physiological institute, whose object is the investigation of all problems relating to motherhood and infancy, with the ultimate aim of scientifically determining the best conditions for the production and rearing of healthy children." The *Allaitement-Maternal* and *Mutualité Maternelle* of Paris care for working women and the wives of working men for several months preceding and during childbirth. Both of these organizations have extended their work into other cities of France. They also both work in conjunction with the Consultation

de Nourrissons, which consists of a series of schools and dispensaries having for their object training in intelligent motherhood, the furnishing of properly prepared milk, and the giving of advice.

Bulgaria.

The declaration of war against Turkey by Montenegro on the afternoon of October 8 centred the attention of the civilized world on the Balkan States. Especially has it called attention to Bulgaria, which has so uniformly and so swiftly been successful in its military movements since it a few days later joined in the battle against the Turkish arms. In an article in the *Review of Reviews* for December, Albert Sonnichsen shows the rapid progress made by Bulgaria within recent years and some of the reasons why her march on Constantinople was so generally successful. Of the four distinct races peopling the Balkans—Slavs, Turks, Greeks, and Rumanians—the Slavs are in great majority, and of the Slavs the Bulgars. “By themselves alone they probably outnumber all the other nationalities together.” But their dominating influence in Balkan affairs Mr. Sonnichsen attributes more to temperamental qualities than to numbers. Of all the Christian nations that succumbed to the Turkish invasion of Europe the Bulgars, he says, were the most completely overcome. But it was not until their unyielding leaders were destroyed that they were reduced to serfdom and turned over to the care of the Greek clergy. The Patriarch of the Greek church determined to Hellenize them; so he destroyed all of the old Slavic literature and forbade them to speak any other tongue than Greek or to send their children to any but Greek schools. This they refused to do; so they rapidly became illiterate and came to be known to the Greeks as “blockheads.”

“Suddenly (at the close of the Russo-Turkish War, in 1878) three million of these slaves found themselves free, without masters, launched into a full national life without so much as a printed book to begin with. The jargon they spoke was not even a language, only a degenerated dialect carried down from the old Slavic through many generations of peasant households. All the knowledge necessary to the organization of a national structure—the art of govern-

ment, military science, theories of education—must be learned from outsiders. They must begin from the beginning." This they have done, and, by realizing their own ignorance, setting hopefully to work, and learning freely from the outside world, they have accomplished it rapidly and well. But the military skill manifested by them in the war with Turkey is to those who know Bulgaria, says Mr. Sonnichsen, by no means the most remarkable feature of her renationalization. Although much has been spent on armament, even more than has been spent on the national educational system, the interest in education is general. "Almost every Bulgarian following a professional career began as a village school-master. Even though only ten children may be assembled in a small village, the government thinks it worth while to send a schoolmaster there to teach them. Attendance is, of course, compulsory. Year by year the standard of requirements for the teachers has been raised, as the supply of young teachers from the normal schools increased. Girls, especially, have been encouraged to enter this career, with the result that the thirst for knowledge, so prevalent among the younger generation, is equally keen among both sexes."

But there is excellent provision also for higher education. In the early days the government sent hundreds of young people abroad to study in foreign universities, and does so even yet for those who are preparing to specialize in the various professions; but for a general academic training Sofia University answers the requirements as well as any foreign university. Of the technical schools the agricultural colleges are probably the best, especially in their influence upon the people at large. "Each of these colleges is not only a school of theoretic knowledge, but an experiment station and model farm to which the peasants of the surrounding region may come to see modern scientific farming methods demonstrated before their eyes. Our own Department of Agriculture would have little to teach Bulgaria."

But it must be remembered that only half of Bulgaria was liberated, and that the Bulgar population that is living throughout the territory of Adrianople, and in most of Macedonia down to the gates of Salonica, have been under

Turkish rule and oppression and have not had the opportunities of free development that the liberated portion has enjoyed.

Canada.

CONTINUATION WORK IN ONTARIO.—An advanced position in regard to continuation school work has been taken in the province of Ontario through the passage of an act authorizing local school-boards to pass by-laws "requiring the attendance of adolescents in a city, town, or village under the jurisdiction of the Board at day or evening classes to be established by the Board or at some other classes or school in the municipality." By the terms of the law the details of management are left to the local authorities. The law arranges for an Advisory Industrial Committee and an Advisory Commercial Committee; and it is provided that the interpretation of these by-laws "so far as they relate to adolescents engaged in trades or in industrial or manufacturing occupations, shall be settled by the Advisory Industrial Committee"—and that "so far as they relate to adolescents engaged as clerks in offices or in any other department of commercial business (they) shall be settled by the Advisory Commercial Committee." Fines are imposed upon parents, guardians, and employers who wilfully violate the provisions of the law governing the continued education of adolescents who have gone to work, the penalty being \$5 for the first offence and a fine not exceeding \$25 for a second or subsequent offence.

CONCESSIONS FOR RURAL TEACHERS.—Other countries besides the United States are meeting with difficulty in securing teachers for their rural schools. Owing to the attractions of other business, as well as other places, Ontario has found it necessary to make some concessions to provide teachers for its rural schools. As a temporary means the Minister of Public Instruction has notified the School Inspectors that he will approve the appointment of a teacher with a third class or lowest grade certificate, or even of the appointment of a teacher with the district certificate, which has hitherto entitled the teacher to temporary employment as an assistant only. The arrangements provide for the temporary employment of even a candidate who holds no

district certificate, provided the inspector recommends such teacher for employment. But, and this is significant, in every case where such appointment is recommended, the inspector is to satisfy himself that the local school board is offering as high a salary as may be reasonably expected and has first taken due measures to obtain a duly certified teacher.

Education for November calls attention to the fact that in Germany and France the problem of providing competent teachers for rural schools is not so acute, "because of the large preponderance of men teachers who expect to make teaching their life work, who live on the soil, as it were, and are encouraged by the possible chance of being advanced in time to an inspectorate, by recognition in the form of mention for special merit, by prizes, and in France by coveted scholastic decorations also, and in both countries by the certainty of a small pension." At present in the United States the best outlook for the solution of the problem seems to be along the lines of better pay, and in an increase of the social advantages and the possibilities for improvement afforded by the consolidation of the small rural schools into larger units.

China.

CHINA A REPUBLIC.—On the 12th of February, 1912, the Manchu dynasty, which had ruled in China for nearly three centuries, came to an end by the abdication of the child emperor, Pu Yi. The edict of abdication issued in the Emperor's name was as follows:

"We, the Emperor of China, have respectfully received to-day the following edict from the hands of Her Majesty, the Dowager Empress:

"In consequence of the uprising of the Republican army to which the people of the provinces of China have responded, the empire is seething like a boiling caldron, and the people are plunged in misery.

"Yuan Shi-Kai was therefore commanded to despatch commissioners in order to confer with the Republicans, with a view to the calling of a national assembly to decide

on the future form of government. Months have elapsed and no settlement is now evident.

"The majority of the people are in favor of a republic. From the preference of the people's hearts the will of Heaven is discernible. How could we oppose the desires of millions for the glory of one family?"

"Therefore, we, the Dowager Empress and the Emperor, hereby vest the sovereignty of the Chinese Empire in the people.

"Let Yuan Shi-Kai organize to the full the powers of the Provisional Republican Government, and confer with the Republicans as to the methods of union assuring peace in the empire and forming a great republic with the union of Manchus, Chinese, Mongols, Mohammedans, and Tibetans.

"We, the Empress Dowager and the Emperor, will thus be enabled to live in retirement, free of responsibilities and cares, and enjoying without interruption the nation's courteous treatment."

In consideration of the abdication the Republicans made the following eight pledges to the Emperor: "First, the Emperor shall retain his title and shall be respected as a foreign monarch; second, the Emperor shall receive an annual grant of 4,000,000 taels until the currency is reformed, after which he shall receive \$4,000,000 Mexican; third, a temporary residence shall be provided in the Forbidden City, and later the imperial family shall reside in the summer palace, ten miles outside of Peking; fourth, the Emperor may observe the sacrifices at his ancestral tombs and temples, which will be protected by the Republican soldiers; fifth, the great tomb of the Emperor Kwangsu will be completed and the funeral ceremony fittingly observed at the Republican expense; sixth, the palace attendants may be retained, but the number of eunuchs cannot be increased; seventh, the Emperor's property will be protected by the republic; eighth, the imperial guard will be governed by the army board, the republic paying their salaries."

Although it had been evident for some time that the Manchu dynasty was losing its control, the swiftness of the revolutionary movement which wrenched the sceptre from

the hands that had despotically ruled upward of 300,000,000 people for three centuries was one of the greatest marvels of a wonderful age in the annals of human progress. The skill and mastery with which the revolutionary movement was conducted; the speed with which it swept the empire; the comparative freedom from bloodshed and destruction with which it was accomplished; and the tremendous import of this great effort at self-government, are not easy to appreciate.

Whether the Chinese people themselves have as yet any adequate conception of the difficulties confronting them, as they attempt to build a stable and progressive government upon the unstable conditions of graft and corruption left by the Manchu rulers, is not yet apparent. The republic is young. The training which the republican leaders have received in foreign universities and in their contact with Europeans and Americans in "the treaty ports" will not meet all the conditions of far-seeing wisdom, constructive statesmanship, and self-sacrificing patriotism that are demanded for the success of the republic. Badly needed public revenue must be secured from a land that has been passing through one of the most distressing famines ever visited upon this famine-subject country; selfishness, political knavery, and all forms of dissatisfaction and corruption must be wisely but firmly met; and, above all, a form of rule must be adopted which, while it represents the rule of the people, shall be well adapted to Oriental thought and practice. No mere adoption or grafting on of Western ideas or ideals will successfully meet such conditions. China to be successful must work out for itself a government that suits its people—a true oriental republic.

Fortunately, there are many conditions in China that favor the success of the republican effort. While graft in its worst forms was common in the Chinese Empire, the rulers rarely went beyond money-matters in their corruption. And the great mass of the Chinese, so far as their own conduct and the management of their own affairs were concerned, had many of the privileges and immunities of free citizens in other countries. If they conducted themselves in a peaceable manner and paid their taxes regularly and promptly, they were given a large measure of personal

liberty and self-control. Even when they forcibly resisted the financial exactions of some petty tyrant and by a popular uprising drove him from his post of duty, the Government was more apt to assume him to be incompetent and displace him than to regard the people as disloyal and subject to discipline.

The whole fabric of Chinese custom and rule has for centuries been building up a sense of self-respect and independence of thought and act that no doubt account for the marvellous speed with which the revolutionary movement swept the empire out of existence. Supported as it was by the mass of common people who had never been morally cowed and intimidated and who, while they revered their Great Ancestor the Emperor, had never been subdued into awe of autocratic authority, all that was needed was a leader in whom the masses had confidence. And this leader was found in the idol of the soldiers, Yuan Shi-Kai. Above all, the Chinese have a country of whose tremendous resources they are becoming aware, and they have faith in themselves. Moreover they have the moral courage and patience to stand firm under a long series of disasters. And these things should bring them success.

MISSIONARY WORK IN CHINA.—Few people realize the extent of the missionary work that is being carried on for the regeneration of China, nor that this work is civic, educational, and ameliorative, as well as religious. There are at present no less than 6500 foreign missionaries, Protestant and Catholic, at work in China. And their work is supplemented by that of nearly 12,000 Chinese clergymen, evangelists, and religious teachers. That the missionaries have won for themselves and for their cause a place of respect in the minds of the people, is shown by the fact that during the recent revolution both Chinese and Manchus offered them their homes as places of refuge from the turbulent scenes, and by the additional fact that one of the earliest assurances of President Yuan Shi-Kai was that of perfect freedom of worship and entire religious liberty.

The President, in a message to a large gathering of pastors of the Protestant churches in Peking, also clearly indicated his favorable opinion of the great work accomplished by missionary effort in China. After referring to the slow

progress of the work at first, owing partly to the distrust and suspicion with which the conservative Chinese looked upon the new ideas and partly to the fact that missionary workers could not at first make themselves clearly understood in the difficult Chinese language, he said the spirit of Christianity had gradually won its way. He then added: "Moreover, the different missions have achieved much success both in works of charity and in educational institutions. On the one hand, they have conferred many favors on the poor and the destitute, and, on the other, they have carefully trained up many young men. For doing both they have won golden opinions from all classes of society. The reputation of Christian missions is growing every day, and the prejudice and misunderstanding which formerly existed between the Christian and the non-Christian have gradually disappeared, which will surely prove to be for the good of China." He also intimated that, so far as he understood the principles of Christianity, they were what he was striving for in the new government.

Denmark.

Denmark is one of the few countries in which the school needs in rural districts are approximately as well met as they are in the cities. Illiteracy has everywhere been practically eliminated. This result is partly due to the high regard in which education is held by the people, partly to the ease with which compulsory attendance is enforced in a small kingdom with a homogeneous population, and partly to the excellent manner in which school training is adapted to the needs of the different communities.

Denmark unites public and private agencies in its state school system, Copenhagen having 25 free schools and 12 pay schools. The municipalities supply such educational appliances as are used in the schools and, for the children of poor parents, the books, etc., needed for the preparation of lessons at home. The expenses for maintaining the public schools are borne largely by the municipalities, especially such matters as providing buildings and equipment, although the State always assists communities that are unable to

bear these expenses. The public school funds are derived from a tax levied on land according to its quality and from annual subsidies apportioned by the State.

England.

THE TEACHING OF RELIGION.—The extent to which the formal teaching of religion in schools supported by taxation can become a subject of controversy is difficult to realize here in America where such instruction in the public schools is forbidden. An article written by F. E. Smith, M.P., for the March *Fortnightly Review*, indicates that the provisions in regard to religious instruction in the English schools have been the most difficult ones to frame in all school legislation for some years past. It has also been the subject of contention in most of the educational controversies that have arisen for some years past; and in many instances it has prevented badly needed combinations and the unifying of effort in behalf of the children of the schools. The main controversies on the subject in England have occurred between the Anglicans (Conformists) and the Non-Conformists (those not belonging to the Church of England, sometimes called Dissenters).

By the Act of 1870, the English people had their first experience with schools receiving support from public funds. The approval of this act was quite general, and most people paid taxes willingly, although it often meant that part of the funds so raised were being used to support religious teaching not of their own faith. However, in 1902, the act was revised so as to increase the power of local control, and for the first time levied local taxes, or "rates," to be used in support of the local schools, were provided for. This, in Mr. Smith's opinion, resulted in friction because "people who for years paid taxes (general) to support religious teaching which was not of their own faith could find it a point of conscience not to pay rates (local) for the same purpose."

The friction arising from the Act of 1902 and from educational acts since that time seems to be partly political and partly religious. Mr. Smith summarizes the causes of controversy as: "1. In a very large number of districts

there is no choice of religious instruction, and, owing to the preponderance of schools founded by churchmen (Anglicans), Non-Conformist parents must either accept Church teaching for their children or withdraw them altogether from all religious teaching. 2. A large number of teacher-ships, especially head-teacherships, are by the operation of the trust deeds of voluntary schools (schools established by private effort prior to 1870) closed to Non-Conformist teachers, and confined to members of the Church. 3. Rate-payers who are not interested in or are opposed to Church teaching may be required nevertheless to pay rates to support that teaching. 4. The purely religious objections of such ratepayers are aggravated by the element of denominational control over schools largely supported by public funds and by the exclusion of the public authorities from the complete control of the public patronage of the education service."

The following statements are quoted from the expressions of opinion on the subject made by prominent public men; and they are quoted for the double purpose of giving an idea of the conflicting views that prevail and also to indicate some of the evident reasons for these views.

"The great body of Dissenters will be found ready to accept the same broad simple Bible-teaching which, for the most part, characterised Board-school Christianity."—Mr. Augustine Birrell.

"We want the child to be brought up in the faith of his father, at least until he comes to such an age as to be able to judge of a faith for himself."—Sir Henry Campbell-Bannerman.

"Would it have been impossible, after all, to have arrived at some new and larger compromise on the question which would have ended once and for all this long wrangle, this lamentable quarrel, which for sixty years has kept the churches apart and has so often prevented this House from doing its full duty to the children? The virtues could be included without specific denominational instruction—but I do not think the State is entitled to say that. The State has no right to declare how much or how little dogmatic teaching is necessary for the formation of character. . . . As a Liberal I wish to see the greatest possible liberty given for

all sorts of religious belief to be taught even in the schools paid for by the State.”—Mr. Herbert Samuel.

“The dominant factor in any settlement (of these controversies) must be religious equality.”—Mr. Runciman.

Mr. Smith himself counsels forbearance and compromise on the part of both parties in the controversy. And the whole subject is mentioned to show to those who urge the necessity of formal religious instruction in the schools the possibility of friction that such a course would produce.

THE HEALTH OF THE CHILD.—As indicating the interest of the English in this problem, *Education* for October refers to the fact that in the conference of the combined child-study societies, held in London in May last, the subject for consideration was the “Health of the child in relation to its mental and physical development.” The conference was presided over by Sir James Crichton Browne, who was a pioneer worker in the care of the health of the child, a cause which through health teaching, medical inspection, etc., is attracting such universal attention.

The sixteenth annual conference of London teachers held during the year was also interested in similar questions, for their discussions centred on “The problem of the backward child; present position with regard to such formal training as deep breathing and chest expansion.” Even in such countries as Russia, and in the Central and South American republics, where education is on the whole very imperfectly equipped and organized, the departments of school hygiene and medical inspection are well equipped. Altogether, the advances made in medical and sanitary sciences have greatly interested not only educational conferences but educational practice as well.

LONDON UNIVERSITY.—The *London Times* has been deeply interested in a movement for the development and expansion of the London University. In an article published in its Educational Supplement late in the year, it says: “The growth of modern universities in this country is the outstanding intellectual fact in our recent development. In England, Scotland, Ireland, and in Wales new universities have been created, old ones have been reorganized, and university colleges are adapting themselves to the full university standard. The causes of this wide-spread

movement may be described in many ways, but all are connected with one feature of the spirit of our times. In every direction we recognize a growing faith in knowledge as the measure and the lever of progress. . . . The knowledge that is the peculiar treasure of universities is no longer regarded as some mystic possession to be handed down from one generation of self-appointed guardians to another; it is rather the leaven of efficiency without which the fabric of our national life will become stale and profitless. In London we are becoming conscious at last of the possibilities of a university worthy of the seat of Empire; and the series of munificent gifts toward the purchase of a new central site which we have recorded in the last few days has brought home to all of us, in a very practical way, that a great movement is on foot." The proposition is to raise a million pounds sterling for the site and the necessary buildings for the purpose.

THE LLOYD-GEORGE INSURANCE LAW.—England has recently had several laws under consideration which will greatly modify existing social and political conditions. One of these, drawn up and passed through the efforts of Chancellor Lloyd-George, went into effect on July 15. It is a measure for insuring working people against lack of support during illness or disability by means of a fund to which the working people themselves, their employers, and the government each contributes a specified amount. The law affects more than 13,000,000 persons,—people of both sexes, of all ages, and of every occupation. At the age of 70 the insurance stops, because at that time the working person begins to enjoy the benefits of the Lloyd-George old-age pension law of 1909.

ENGLAND'S DISTRUST OF GERMANY.—As a matter of world politics the evident distrust of Germany that prevails in England because of the rapid increase in the strength of the German navy is of general interest. Englishmen cannot see the need for a great German war fleet and are inclined to interpret it as a menace to their own coasts.

The *Review of Reviews*, in its September issue, publishes a letter written by Sir Hiram Maxim which sets forth this suspicion. He says: "Germany has no neighbors who would dare invade her territory or attempt the least in-

fringement of her rights; all of them have the best possible reasons for desiring to maintain peace with her. Hence Germany's position is absolutely secure and unattackable; she runs not the remotest danger of any attack upon her rights. In foreign countries we find Germany possesses all the rights and privileges which England and the United States enjoy. . . . No other nation has the faintest idea of infringing upon her rights. . . . Germany has no dangerous enemy, domestic or foreign. Why then does she burden herself with taxes in order to build a fleet of monstrous strength? . . . Justly or unjustly, the English seem to imagine that when the Germans have completed their powerful fleet, London will awake some foggy morning to learn that during the night the greater part of the English battleships have been annihilated by German torpedo-boats, and that Portsmouth is being bombarded without a declaration of war, as was the case when the Japanese destroyed the Russian fleet before Port Arthur."

We are inclined to regard the commercial success of Germany as a more fundamental cause of England's feeling toward that country. As Sir Hiram Maxim says, "Germany has at the present time a very extensive foreign commerce, thanks, not to political influence or force of arms, but to the incomparable skill and enterprise of her people." The fact that she is the chief commercial rival of England probably counts more for the latter's unrest than the building up of a great navy, although such a navy naturally furnishes the foundation for fears of contests for supremacy in other directions.

France.

LEAGUE OF EDUCATION.—There has existed in France ever since 1866 an organization which has had for its specific purpose the improvement of the opportunities for popular education. Popular education has always depended, especially in great initial movements, upon the zeal and personality of individuals; and France was fortunate in having the active and earnest ability of Jean Macé back of this movement which is known as The League of Education. In the early years the energies of the League were devoted largely to the conduct of a general campaign for universal

and compulsory education. Macé regarded this as "the necessary corollary of universal suffrage," and, in 1872, the League presented a monster petition for legislation on the subject to the National Assembly at Versailles. This was the famous petition presented in the name of "*a sou against ignorance*," one sou being the tax on signers for the expenses of the work.

It was not, however, until 1882 that primary education was made both free and compulsory in France. Since that time the energies of the League have been devoted to the work of popular education through private agencies auxiliary to the schools. The League maintains a general office in Paris and, because of its importance, has been recognized by the French Government as of "public utility." It is interesting to know that after the death of Jean Macé a bronze statue was erected to his memory in Paris by the *sous* of the school children, and that this statue bears as a device the principle which governed his life, "To know what one wishes. To will what one knows." (See *Education* for February).

IGNORANCE OF GENERAL FACTS AND EVENTS.—Leading newspapers in France and England have been somewhat startled at the lack of important general information that has been shown by young people after they have left the schools. Things with which every one is supposed to be familiar, and especially matters that are of more than usual importance, have been assumed to be well known and at least fairly well understood by all who have received instruction in the schools. Hence, the extent of the ignorance along these lines has startled those who have regarded every good and great thing as possible to the schools. And it seems like a good opportunity to reiterate several important things that have for some time been apparent to the thoughtful friends of the school:

First, the essential and most important things need in some way to be more specifically pointed out in courses of study, so that they may receive particular attention and as far as possible be held to as essential requirements.

Second, the tenure of compulsion in education must in some way be extended until the knowledge and training are more complete; for often the school is obliged to release

its hold upon young people just at the time they are really beginning to be educated.

Third, the unbusiness-like policy of falling short of providing the best in educational opportunity and influence, because of the additional expense involved, must be discontinued; for nowhere is there more danger of nullifying by such a policy the value of what is already invested than in education.

FROEBEL.—The last two years have witnessed a great revival in France of the study of Froebel and his teachings. His doctrines of inner development and social oneness have been given a new prominence by the social movements which have aroused great public interest in the child. This general influence has been greatly strengthened by the interest recently manifested in Froebel's teaching by such great educators as Compayré, as well as by the movement for the study of Froebel which was organized by the Normal School of Sèvres in 1910. The presentations of the work and methods of Miss Montessori are having this same influence in the United States, just as the interest in vocational training has given new life to the study of Pestalozzi and his teachings. It seems somewhat strange that the twentieth century should be going to school to the eighteenth; but the fact will always stand that the latter was a notable epoch in educational development, and the strong constructive work of Froebel and Pestalozzi will always loom large in any efforts at developing the knowledge, skill, or nature of the child.

Germany.

VOCATIONAL EDUCATION IN PRUSSIA.—For a number of years Prussia has been moving toward a complete system of obligatory vocational education. *Education* for December states that the draft of a law controlling the matter has recently been submitted to the Prussian legislature. This law would make attendance at a commercial or industrial continuation school obligatory upon all boys under 18 years of age. Boys "usually finish the common schools at the age of 14 or 15, and, according to the proposed State law, their compulsory attendance at the con-

tinuation school will continue for three years or until the end of apprenticeship, but not beyond the 18th year."

Boys have the privilege of receiving similar instruction at a guild or other continuation school or trade school, "provided the instruction at such school has been recognized by the President of the respective Government District (Regierungs-President) as an adequate substitute." The tuition in the public continuation schools already established is merely nominal, being from \$1.00 to \$1.50 per year; and is paid by the master of the apprentice or by the employer. The main financial burden is borne by the municipality aided by state appropriations where the local authorities have established compulsory attendance—a privilege that has for some time been optional with the respective municipalities.

HEALTH CIRCULARS.—The *Journal of the American Medical Association* reports a movement on the part of the German association for the spread of health knowledge among the people (Verein für Volkshygiene) which promises to be far-reaching in its results. With the view of popularizing hygienic knowledge and living, it is placing, for free distribution, easily understood pamphlets on matters of health in the offices of physicians and dentists and in all pharmacies. The Prussian Minister of the Interior is coöperating with them and has arranged for the distribution of 100,000 circulars giving information concerning the most common communicable diseases. In addition, arrangements have been made to place in the above-named places: (1) A short, easily understood circular on the importance of public and personal hygiene; (2) circulars on the abuse of alcohol, on the movements to prevent the spread of tuberculosis, and on the diseases which are disastrous to plant life; and (3) information in regard to the proper care of infants. No information in regard to the treatment or cure of disease is to be given in the pamphlets, the people being advised to apply to a physician immediately upon the appearance of disease. The damage done by quacks and nostrums is also to be emphasized.

NEW SCHOOL BILL FOR SAXONY.—A new school bill for the Kingdom of Saxony to take the place of the school law

of 1873 has been submitted to the Landtag. This, *Education* for September states, is interesting more because of the way in which it discloses modern educational tendencies in that kingdom than on account of its provisions, which will undoubtedly be modified at any rate.

The provisions of the bill which are of most interest are: (1) Each community is left free to decide whether it will establish a general Volksschule or several different kinds of separate schools, such as elementary, middle, and higher; (2) the denominational character of the schools is maintained, but it is required that where sectarian schools for all exist, children must attend the schools representing the faith of their parents—however, if there is no separate school for children of a certain faith, they must go to school, but will be exempted from attendance upon the religious instruction in the school and must instead be provided with religious instruction according to the doctrines of their own church; (3) the principle is firmly established that the education of the child must rest on a moral and religious basis; (4) private instruction shall be given only by men and women who have passed the state examinations, and private schools may employ only such teachers; (5) the number of pupils to a teacher is reduced from a maximum of 60 in the Volksschulen to a maximum of 50; (6) the right of the local clergyman to supervise the work of a school having no regular head master is abolished, and the supervision of the schools is now placed in charge of professionals only, excepting that the supervision of religious instruction is still left to the clergymen; (7) attendance at continuation schools is made obligatory for both girls and boys, these continuation schools to give instruction in general subjects common to all the schools and in special matters suited to the local industrial requirements, the girls to receive instruction in domestic economy as well as in the trades and commercial pursuits that are open to them in the business and industrial world.

EXPERIMENTAL PEDAGOGY.—In 1906 an Institute for the study of Experimental Pedagogy and Psychology was established at Leipsic. As stated in its Prospectus, the purpose of the institute is that of training its members in the

method and principles of experimental pedagogy and psychology, and of forming a properly equipped centre for independent scientific work along these lines. Some form of experimental work would seem to be almost fundamental in the building up of a system of scientific pedagogy. And that the work done at this centre in Leipsic is appreciated is evident from the number and character of those contributing to its support. Among these are the noted investigators Wilhelm Wundt and Wilhelm Ostwald. That its value is appreciated even by those who do not entirely accept the experimental methods is shown by a letter accompanying one of the contributions: "As a Herbartian, I am naturally unable to declare myself a follower of the experimental methods, but I believe that teachers should support every method which is intended to establish a scientific basis for pedagogy." To this the writer added, however, "It is also important, on the other hand, that the experimental method should show whether it has any real value for pedagogy."

A NEW NORMAL COLLEGE FOR WOMEN.—Forty years ago higher education for women was practically unknown in Germany. Beyond occasional courses in modern languages, literature, and the history of art, in finishing schools for young ladies, there were no opportunities for women to get the higher schooling so freely provided for men. Even in recent years women have had difficulty in securing anything approaching equal facilities for high-school and university instruction. As early as 1871 Frau Henrietta Goldschmidt founded a Society for Family and Public Instruction which had as one of its specific objects the enlarging of the educational opportunities so as to include her own sex; and the opening in Leipsic of a new high school for women in the autumn of 1911 is in reality a triumph of her efforts.

The institution is known as a Normal High School, although it is in effect a college where scientific lectures are delivered, usually by professors celebrated in their special lines of endeavor. A special feature of the college is its Museum of Methods of Instruction, where new ideas in pedagogy are examined and put to practical test. There are five divisions in this department, dealing respectively

with matters pertaining to: (1) Domestic training; (2) public playgrounds and their care; (3) benevolent institutions; (4) educational institutions with particular objects; (5) societies for the encouragement of higher ideals of instruction among the lower classes. Other fields of work are to be gradually introduced into the Museum's work. Special fields for practical work in the city of Leipsic are being opened up to the students. Every educated woman over eighteen years of age is admitted as an auditor to all the lectures and practical courses of the college. The fees are but nominal, only about \$2.50 for a term if one lecture a week is taken and \$3.50 if two or more are taken. This enables a great number of young women to develop a training which is very valuable in the education of children.

A PLEA FOR CO-EDUCATION.—It is interesting to note that some of the leaders in the movement which is opening liberal education opportunities to women in Germany have declared for co-education in secondary schools as it now exists in Baden. These leaders recognize the significant fact that providing similar educational opportunities for boys and girls in separate school plants, on any large scale, is an unnecessary and often prohibitive duplication of cost. The necessity of the struggle of the women in Germany for higher education, and their present efforts to secure the means of meeting their preliminary requirements in the secondary schools of that country, are hard to reconcile with the generous encouragement usually accorded to every educational movement in that highly enlightened land. A remnant of the prejudices which cause it, however, still exists in the attitude of some of our own higher institutions of learning toward admitting women to equal advantages, and on equal terms with men to all their courses.

THE WOMAN'S EXHIBITION IN BERLIN.—The *Outlook*, in its issue for March 30, gave an account of an exhibition in Berlin, early in the year, in which everything displayed was either made, arranged, or managed by women. In conjunction with the exhibition a congress was held at which such questions were considered as: The function of girls' schools as a preparation for domestic or professional life; the importance of the woman's movements as affecting the

relation of the sexes and as preparing women for family and social life; the advisability of having a *weibliches Dienstjahr*, on terms of compulsory social-welfare service for women that would correspond to the compulsory military service which is regarded as a part of a German man's duty to his country. This exhibition should mean something to the whole social and educational world, as well as to the 10,000,000 women of Germany who in one form or another earn their daily bread by labor outside of the home. Fortunately, neither English nor American women are called upon to do the hard manual and physical labor that falls upon so many German women. But the organizers of the exhibition endeavored to show such women, as well as all other German women, how they might better equip themselves for their struggles for a livelihood amid present-day economic conditions. And in this respect the exhibition should prove helpful to the women of other countries.

USE OF MOVING PICTURES.—The Prussian Ministry of Education is reported to be considering the feasibility of employing moving pictures in certain courses of its higher institutions. With this end in view a number of film manufacturers have been given an opportunity to demonstrate what they can do in the preparation of films along the lines desired. Moving-picture films are already available along a number of anatomical, biological, and bacteriological lines, and manufacturers seem to feel confident in both Germany and the United States that an enormous field for their products will be opened up when educators fully realize the value of moving pictures as a means of life-like illustration of educational topics.

THE SOCIALISTS.—There has been a great increase in the strength of the Socialists in the German Reichstag. A Socialist, in an election held early in the year, even defeated the Conservative candidate in the Emperor's own district of Potsdam, which is the chief imperial residence and the chief garrison town. The Socialists in the Reichstag now number 110 members as against 42 Radicals, 46 Liberals, 93 Clericals (Roman Catholics), 29 Particularists, and 69 Conservatives.

The editor of the *World's Work* thinks this great gain in the Socialist membership of the German parliament rep-

resents dissatisfaction with the present government rather than belief in the doctrines of Socialism. "What a pity," he says, "it is that the Emperor, with all his ability and brilliancy, is not sufficiently alive to the movement of the age to throw off the trammelling superstition of 'divine right,' break the shackles of bureaucracy, and put himself at the head of the popular awakening which has suddenly made Germany, despite its Mediæval government, one of the most progressive and prosperous of modern nations, and which might make it, under democratic rule, led by an Emperor as sympathetic with the aspirations of the people as he is bold, energetic, imaginative, and magnetic, the most enviable of all!"

Holland.

TRAINING FOR FOREIGN CIVIL SERVICE.—It may be of interest to note that the higher technical school at Delft provides special courses in agriculture, engineering, and building, with special reference to the needs and conditions of the Dutch colonial possessions in Malaysia. As New Guinea and Borneo are two of the largest islands in the world, Java the richest and most populous, and the Moluccas, or "Spice Islands," among the most famous, the importance of sending well-trained men for commercial and administrative service in this field is exceedingly important. The Government of Holland has made excellent provision in this school for the training of candidates for such service and also pays sufficiently liberal salaries to its employees in these foreign fields to attract and hold good men. In addition to preparing for a chosen line of training, a candidate must learn the native languages of Malaysia, the history and ethnology of the natives, and must acquaint himself with the main features of the Mohammedan religion, which prevails in these islands.

But what is of more interest to the educational world is the fact that a strong movement has recently arisen for educating the natives. This has created a great demand for teachers who must be supplied from the mother country. These teachers must also be prepared in the languages and characteristics of the people. The average salary offered for this teaching is said to be high.

India.

THE DURBAR.—The transfer of the capital of India from Calcutta to Delhi and the reception given the native princes at the latter place by the King-Emperor George V and his wife, the Queen-Empress Mary, was the great event of the year in this country. Such a public reception in India is known as a Durbar, and this one, in which the princes of India paid public homage to their new sovereign, was on a scale of magnificence probably never before equalled even in India, where the climate, the wealth of its princes, and their fondness for display, make possible unusually gorgeous public exhibitions.

After the various princes had marched to the foot of the throne and laid the symbols of their allegiance at the feet of the Emperor, he and his wife arose and, followed by the royal train, marched, to the strains of music, to the centre of the arena where a royal pavilion had been erected. This was the climax of the Durbar splendors, and is described in *Current Literature* for February as follows: "Ascending the steps of the royal pavilion at Delhi, their Majesties stood in front of the thrones, facing the assembled thousands. It was the climax of the great day. The golden dome of the pavilion flashed in the sun. High above the thronging tide of life, the King-Emperor stood crowned and robed in state before his people. By his side was Mary, his consort, her presence proving a revelation to the Indian multitudes of the importance of women in the Western world. On the steps of the throne were grouped the brightly attired pages, carrying the royal trains. On the tier below stood Lord and Lady Hardinge, Lord Crewe, the Duchess of Devonshire, and the other members of the suite. On a lower tier still were the members of the staffs in scarlet uniforms. The picture which presented itself was one of imposing grandeur and solemn beauty. The central scene, when the King-Emperor was lifted high above the people so that all in that vast concourse, numbering nigh upon a hundred thousand souls, might see him, and the lofty appeal of the music, made an impression upon the mind which time cannot efface. For a while those present gazed in stony silence at the spectacle."

It was at the end of this scene that the Emperor announced the change of the seat of empire to Delhi. Owing to the completeness of the surprise, the announcement was at first received in silence. But soon great applause and enthusiasm followed, for "The historical and geographical supremacy of Delhi can hardly be disputed." At Delhi the government of India will not merely occupy a much more central position geographically, but it will be in immediate contact with much more varied types of Indian society.

Italy.

END OF WAR WITH TURKEY.—The terms for peace between Italy and Turkey have been practically arranged, with the exception of a proposed loan to Turkey of between \$100,000,000 and \$120,000,000, concerning which Italy is now communicating with French, English, and Belgian financiers. The terms of the proposed settlement include the tacit acceptance by the Porte that the Italian occupation of Tripoli is an accomplished fact, Turkey being permitted to retain a Mediterranean port at one of the extremities of Libya, with a strip of territory allowing communications with the Arabs in the interior. Provision is also made for the recognition of the spiritual suzerainty of the Sultan in Tripolitania, for the payment of monetary grants to the Arab chiefs by Italy, which also will pay to Turkey annually a certain amount of the national debt, the payment being guaranteed by revenues derived from Libya, and for the cession to Turkey of some territory as compensation for the loss of Tripoli.

POMPEII.—Early in the year the Italian government uncovered an additional portion of the "Street of Abundance" in Pompeii, and in doing so made a discovery that is one of the most remarkable that has occurred for many years. An admirably preserved temple was excavated, with well-preserved frescos representing all the divinities of Mount Olympus. Another building was uncovered which has frescos representing sacrifices to the goddess Cybele, the mythological wife of Saturn and the mother of Jupiter, Neptune, and Pluto. Sacrifices were made to Cybele, how-

ever, as the mythical daughter of the skies and the goddess of earth. Her priests were called Corybantes.

Further remarkable discoveries have been made in the ruins. A street leading to the Forum, which was closed at both ends by stone pillars to exclude chariots, now proves to have been one of the chief thoroughfares of the city. It is lined with shops, the walls of which show inscriptions and marble tablets, which are well preserved. The excavators have come upon several balconies, one of which, the first to be unearthed, is complete. Five skeletons have been found. Apparently they are the bones of persons overcome while attempting to escape from the eruption. A most interesting discovery is that of a complete wine shop, with bronze and glass amphoræ, bronze lamps, and an ivory safe, which contained a quantity of silver coins. Many frescos and an electoral inscription have been uncovered.

Mexico.

THE MONROE DOCTRINE.—Because of the responsibility imposed upon the United States by the Monroe Doctrine, Congress and the President early in the year took an advanced step for the protection and stability of the republics to the south of us. Under the principles of international law as it has heretofore been interpreted by the great nations, it is forbidden to citizens of one country to prepare an expedition or raise armed forces within the country for the purpose of invading another country, unless the two countries are at war with each other. But there has been no recognized prohibition against the sale of arms in the regular course of trade by the citizens of one country to the subjects of another country, regardless of whether the purchasers are or are not in arms against their own government.

With the special purpose of rendering assistance to the Mexican government in its efforts to quell the rebellions that have been so frequent since Diaz's retirement, Congress adopted an advanced international idea which in resolution declares: "That whenever the President shall find that in any American country conditions of domestic violence exist which are promoted by the use of arms or munitions of war procured from the United States, and shall

make proclamation thereof, it shall be unlawful to export, except under such limitations and exceptions as the President shall prescribe, any arms or munitions of war from any place in the United States to such country, until otherwise ordered by the President or by Congress." In accordance with this resolution President Taft immediately made such a proclamation concerning Mexico, and hereafter such shipments, especially in time of possible revolution, will be prevented to the extent of the Government's power to do so.

Morocco.

By a treaty signed by the Sultan of Turkey early in the year, Morocco has become a French dependency. As the status of Morocco is to be the same as that of the North African state of Tunis, the French will occupy all military positions necessary to maintain order, and the protectorate so established gives France practical control of affairs in Morocco and in reality it becomes a French colony. It is entirely probable that France will take as great an educational interest in Morocco as in Tunis and that the French possession will make for progress in this new dependency.

Peru.

According to *Education* for February, the Government of Peru is undertaking a reform of its system of elementary education. For this purpose it has called to its aid several school inspectors and a special councillor from the United States. The school system in Peru at present consists of elementary schools, higher grade schools (*centros escolares*), colleges of secondary instruction, and 4 universities. The elementary schools offer only 2 years of instruction, the *centros escolares* 5 years (including 2 years of elementary instruction), and the colleges of secondary instruction, which correspond to our high schools, a course of 4 years. Two of the universities are classified as major universities and two as minor, the University of San Marcos in Lima being the only one of the former.

It should be of interest to the friends of education to learn that the South American republics in general are manifesting a live and appreciative interest in education. The

Minister of Education of Uruguay was on a tour of inspection in the United States during most of the year and this effort of Peru marks a spirit of educational progress which is rapidly spreading in the other South American countries.

OLDEST UNIVERSITY IN NEW WORLD.—There are probably few Americans who know that the oldest university in the New World is not Harvard, which was founded in 1636, but San Marcos, founded in 1551 by grant of the King of Spain and the Pope of Rome. The modern San Marcos is a progressive institution little resembling its earlier days, when the curriculum was that of the Middle Ages and its students restricted to the higher orders of the country. At a Students' Congress held at San Marcos during the summer of 1912, representatives from five of our own universities participated. The international character and interest of learning thus holds forth one of the most promising features both for national guidance and leadership and for international peace.

The Philippines.

REPORT OF THE DIRECTOR OF EDUCATION.—The Director of Education in the Philippines reports an enrolment of over a half million pupils in the public schools. They are taught and supervised by over 9000 American and Filipino teachers. The courses of study are made as practical as possible from the primary grades up through the professional courses of the Philippine University. The Director says: "We are not trying to make good Americans of them, but we are trying to make good Filipinos of them, and we are succeeding. We have established as generally as possible throughout the archipelago an educational system which we hope will give the greatest possible number of the islanders the kind of education which will do them the greatest possible good—as islanders."

Doctor J. Paul Goode, after careful investigation, has these words of strong commendation of the efforts of the United States Bureau of Education in the Philippines:

"It is possible that there is not in all history a better record of work wisely established and well inaugurated

than can be shown by this one bureau in the one decade of its existence. There are now about 5000 schools in operation, with an average monthly enrolment of 500,000, presided over by 9000 American and Filipino teachers and apprentices. Since there is a total population of children of school age of 1,250,000, this enrolment shows that over one-third of all the children of school age are in school. Ten years ago not one in a thousand had ever seen a book. This is a very proud record. And the record of numbers could be much greater if funds were available for extension of equipment, and if properly qualified Filipino teachers could be secured."

The editor of *Education* thinks that essentially the same praise could justly be given to our educational efforts in Porto Rico and Cuba, and that the Christianizing and educating of Hawaii which was begun eighty years ago is evidence of the same wise and consecrated effort. "Incidentally," he says, "these fresh fields have afforded the opportunity to demonstrate the correctness of some education theories that in the midst of the various influences of an older and more complex civilization could not be so accurately tested." One line of educational endeavor in which this has been especially clear is in demonstrating the supreme value of vocational education from a cultural as well as from a purely practical point of view. It has called forth the highest and best human qualities of these people. "The ability to do something well—something that is worth while, something that benefits the doer and his fellows—gives a new sense of personal worth, a new self-respect, and draws quickly into its train such virtues as industry, frugality, honesty, considerateness of others, and a whole round of moral qualities."

THE MOROS.—With the Filipino in 1898 we got the Moro, a fierce, naked wild man, with a wavy-bladed "kris" and a big shield, who roams the jungles of Mindanao away down under the Southern Cross near Borneo. And with him, so says Frederick Simpich of the U. S. consular service, in the *Christian Herald* for January 1, 1913, we got a Moslem problem, a problem like Italy has found in Tripoli, and England in India and Egypt. "Now this con-

flict of the Cross and the Crescent is an old story in the East—as old as the Crusades, of course; but when Uncle Sam got the Moro he met it for the first time.” He knew many different races and how to deal with them. “But a real dyed-in-the-beard disciple of Islam, a pilgrim of Mecca who spurns pork and counts it glory to slay a Christian—well, this indeed was a new problem to Uncle Sam.” And this notorious Moro is no ordinary Oriental, weak, servile, and fawning; he does not bow readily to conquerors from the Western World. “Proud, cruel, and cunning, despising cowardice, robust and agile, sober, audacious and vindictive,—small wonder adjacent tribes feared him, and that his fame as a pirate, a butcher, and slayer had spread throughout the East.” That is the “bad boy” of the Philippines on whom Uncle Sam has been trying the effects of the Golden Rule.

When we undertook their pacification and uplift, sad, sudden, and sickening failure was freely predicted. “To-day in Mindanao vast farms of hemp and cocoanuts flourish in the fertile valleys; scores of contented Moros are on Yankee pay-rolls; and even our most captious critics, the British cousins, admit that Yankee rule in Mindanao has been a glad surprise to the civilized world.” In the beginning there was bloodshed and the sacrifice of some American lives before the Moro learned that he could trust us. But slowly the change came, and “to-day these quondam pirates prefer labor to loot; they dive for pearls, weave cloth, manufacture cane furniture, grow tree-cotton, hemp, and cocoanuts. Under American direction they have learned to build bridges, docks, and wharves. Trade is growing fast, and the Moro has caught the commercial spirit of the Americans, Europeans, Chinese, and the more advanced island pagans, who ply their vocations about them. Schools and courts are established, reasonable taxes taken, and justice is quick, direct, and effective. In short, Yankee uplift is making a man of the Moro.”

With a continuation of the processes that are lifting the Moro out of his savagery, and with the education and increase in influence of the younger generation, he no doubt will eventually be ready for the responsibilities of full citi-

zenship. But Mr. Simpich feels that there would be serious danger of his retrograding if such responsibilities were thrust upon him before he has had time fully to outgrow his savage nature.

Spain.

Spain has within recent years been awakening to the influence of the newer educational movements. There is now a strong desire in many quarters to acquire the best the foreign nations have to offer in education. To this end nearly 100 students, through the assistance of the Government, are now resident students at foreign universities and technical schools. But this is entirely aside from the many who are studying in the institutions of Spain itself, under the guidance of men who have gained distinction in letters, in history, in archæology, and philology.

A number of patriotic students who lead in these forward movements held a summer school at Madrid during 6 weeks of the past summer, under the presidency of Professor Pidal, who is well known by reputation in our own universities. Spain may yet regain some of the reputation for its schools which was so worthily built up by its famous universities during the Middle Ages.

Sweden.

THE PEOPLE'S HIGH SCHOOLS.—The people's high schools, referred to in the "Annals of Educational Progress in 1910," which originated in Denmark, have become a characteristic institution of all the Scandinavian countries. These schools are for the benefit of the adult youth, and the curriculum is carefully chosen to promote their material interests as well as their intellectual and moral uplift. Both one and two year courses are provided for in these schools, and the courses are so arranged that the men students attend from September 1 to May 1, while the women students attend from May 1 to August 1. The schools are located in convenient centres, where most of the young people remain for the period of study.

These high schools are a unique feature, and have proved such a powerful agent for raising the general standard of

life and thought among the people that their main features are well worth consideration elsewhere. Sweden, in 1910, had 44 schools of this class with about equal attendance of men and women. The State bore practically half of the expense of their maintenance.

Switzerland.

A NEW SCHOOL OF HIGHER PEDAGOGY.—The “Institute J. J. Rousseau,” established during the year at Geneva, affords excellent opportunity for the study of scientific pedagogy. It meets very fully the newer demands for placing education upon a scientific basis, its purpose being twofold: (1) to furnish to teachers advanced instruction in psychology and pedagogy; and (2) to provide ample means and encouragement for the further development of the science of education. The curriculum comprises general psychology, the psychology of the child, didactic puericulture, school hygiene, with special consideration of the maladies of childhood, the abnormal and backward child problem, moral and social education, and the history and philosophy of great educators. “The method of training is to be eminently practical and individual and necessarily presupposes a completed course of general education on the part of the students; in other words it is post-graduate.” (See *Education*, December, 1912.)

PART VII

CHAPTER XII

MEETINGS—NATIONAL EDUCATIONAL ASSOCIATION

The General Meeting.

THE fiftieth annual convention of the National Education Association was held in Chicago July 6-12. As this meeting registered the half-century mark of the Association's general conventions, the history of the whole N. E. A. movement was reviewed in a series of interesting addresses. The Association was organized in Philadelphia August 26, 1857. The purpose of the organization, as stated at that time, was "To elevate the character and advance the interests of the profession of teaching, and to promote the cause of popular education in the United States." It was organized under the name of The National Teachers' Association, and its members were almost exclusively men. As one of the charter members said, there was but one woman present and she sat in the gallery. The name of the Association was changed at the meeting in Cleveland, Ohio, on August 15, 1870, to the National Educational Association. On February 24, 1886, it was incorporated under the laws of the District of Columbia as the National Education Association; but on November 6 of that same year the name was changed back to that of the National Educational Association. This name it bore until, by special act of Congress approved June 30, 1906, it became the National Education Association of the United States. The charter and by-laws prepared in accordance with the act of incorporation were adopted by the active members of the Association July 10, 1907, at the "Fiftieth Anniversary Convention," which was held in Los Angeles. No sessions of the Association were held in the years 1861, 1862, 1867, 1878, and 1906. The places in which general

meetings have been held are Philadelphia, 1857 and 1879; Cincinnati, 1858; Washington, 1859, 1898; Buffalo, 1860, 1896; Chicago, 1863, 1887, 1893, 1912; Ogdensburg, 1864; Harrisburg, 1865; Indianapolis, 1866; Nashville, 1868; Trenton, 1869; Cleveland, 1870, 1908; St. Louis, 1871, 1904; Boston, 1872, 1903, 1910; Elmira, 1873; Detroit, 1874, 1901; Minneapolis, 1875, 1902; Baltimore, 1876; Louisville, 1877; Chautauqua, 1880; Atlanta, 1881; Saratoga Springs, 1882, 1883, 1885, 1892; Madison, 1884; Topeka, 1886; San Francisco, 1888, 1911; St. Paul, 1890; Toronto, 1891; Asbury Park, 1894, 1905; Denver, 1895, 1909; Milwaukee, 1897; Los Angeles, 1899, 1907; Charleston, 1900.

Some of the most interesting addresses and discussions of the recent meeting in Chicago centred around the following subjects:

HEALTH.—Doctor Harvey W. Wiley, the former head of the Government's pure food bureau, made a forcible arraignment of the American habit of taking medicine for every ill, or, as he denominated it, "the habit of taking something for everything." He also made a telling attack upon all kinds of "dope," in which he urged teachers to make known to children and their parents the dangers of drinking stimulants. "To-day, under the noses of parents who would not permit their children to drink coffee or tea, the young are obtaining more harmful stimulants at the drug-stores and soda-fountains. No one seems to be fighting this inhuman and despicable traffic. There are more than a hundred 'soft drinks' as harmful as coffee and tea. They are the more harmful because they are taken between meals on empty stomachs when they do the most damage." He especially denounced the use of patent medicines, the nostrums which are so plausibly advertised in the newspapers. The religious and agricultural papers, he said, are especially filled with this sort of advertising, and he added that he longed to see the day when the newspapers are free from lauding these so-called remedies which menace the life of our people. "Although many of the contagious diseases, such as tuberculosis and diphtheria, are becoming gradually less as the years go by, there is a startling increase in the nervous and general mental diseases. This increase is so marked that it is necessary for us, and particularly for

teachers, to find the cause. This cause will be discovered in the fact that thousands of children become addicted to the drug habit in early childhood—often in infancy. Parents seem to crave the giving of their children drugs instead of foods.”

Doctor Fletcher B. Dressler, of Washington, urged more thorough medical inspection in the schools. Bad conditions in the schools, he said, are responsible for many diseases of children. “While medical inspection has done much to lessen these diseases, it will do far more as it becomes well established in the work of bettering *home* conditions as well as *school* conditions. But cities must insist on special fitness for this work. Able medical inspectors for the schools are not any too common.” He urged that such inspectors should have a broader training than that provided by a mere medical education. “We need more doctors of public health and not more doctors of medicine.”

Medical inspection has already rendered valuable service along these lines: (a) The detection of communicable disease; (b) the detection of unrecognized disease; (c) the detection and remedying of conditions that would result in permanent physical defects. It has done much to show the ill effects of overcrowding, of overburdening pupils with home-work or with too long hours of uninterrupted work, of lack of out-door exercise, of improper lighting, and of inadequate ventilation. It has made a beginning in instructing the home through lectures and demonstrations, but especially through sending nurses and hygienic-care-takers into the home, thus bringing about great improvements in the food, clothing, and sleeping apartments of the children as well as in the proper care of the infants in the home. But all of these suggest a word of caution, and that is, that these medical inspectors shall not become so obsessed with the idea of the prevalence of disease that they cannot find and rejoice in a great deal of the normal, vigorous health to be found in every school. We get so accustomed to find what we are looking for that it is well to look for health and normality as well as for disease and abnormal conditions.

VOCATIONAL EDUCATION.—Wm. T. Bawden, of the University of Illinois, urged that “The elementary school should encourage in its pupils the development of voca-

tional purpose in their efforts toward education. Further, the pupils must be convinced that the school is able to help them discover and define these purposes, and that as soon as these purposes are defined in their own minds the school is prepared to offer definite assistance in their realization. The school should make the appeal to altruistic motives, emphasizing the ideal of education for service."

"Industrial education is sociologically significant for what it is making possible in the way of collective control, that is control by the community, of the conditions of child labor," said Prof. Frank M. Leavitt, of the University of Chicago. "It is a matter of social concern that children are now being warped, degraded, killed, mentally and morally and physically, by their early industrial experiences. A thorough-going system of industrial education leads inevitably to vocational guidance, child-labor apprenticeship laws, and public wage boards, and will serve to bind them together into a single function."

Commissioner of Education Claxton made a similar sociological plea before the Chicago Women's Club, in an address in which he pleaded for the kind of schools that would afford equally good opportunity for all to prepare for success and happiness. "You are not doing your duty," he said, "if the schools for the rich are good and the schools for the poor are bad, if you have good schools for the native children and poor ones for the foreigners. Our schools have in the past been largely aristocratic—for the families of culture. But all children must be in school, including the children of foreigners, the children of the slums, the children of careless parents, and of the backwoods and the mountains. Furthermore you women should work to prevent the breaking up of the home, which is most noticeable in families of the very poor and of the very rich."

While it was deemed wise, because of the great expense involved in equipping the school for teaching the various specific vocations, to make haste slowly and not to endeavor to equip for everything at once, some variety was urged for youth of 12 to 14. The thought was that wood-working, which is so commonly presented at this time, does not always enable the boy to find the thing for which he is best fitted and toward which he should be guided. The most effective

plan seems to be to present a broad and well-organized series of vocational problems which involve different lines of work, and in their solution to find his peculiar fitness, as well as to test him out in the doing of real things. But in this testing the standards applied must be those of the amateur rather than those of the expert or of the shop, because these youths cannot be expected to have the skill that comes only from long training.

Two difficulties were referred to in connection with providing proper courses and training for industrial work. These were: (a) the expense, and (b) the demand for modifying or making up courses of study on the basis of the experiences of practical life, and without regard to psychology, logic, the philosophy of education, or the wider cultural and character-forming ideals of the educator. Great care should be exercised in regard to all investments in industrial training in order to see that it is headed in the right direction. It is a safe plan to introduce new occupations slowly and only after things already undertaken have been well worked out and established.

Several interesting arguments were advanced to meet the objections of trade unions to the establishment of specific industrial trade schools: (1) If the pupils who would attend the trade school were not afforded the opportunity to do so, they would be out in industry competing with other workmen; (2) if so competing, the emphasis of their activity would rest on the output of their labors, while if they were in the trade school the emphasis would be on their training; (3) even if the product of their labors while in the trade school were sold, the amount would be ridiculously small; (4) the establishment of the trade school gives employment to additional people, and at higher wages than they would receive if employed in direct productive effort; (5) the greater efficiency and shorter apprenticeship brought about by trade school training is a distinct gain to industry and therefore to all organizations that are truly interested in industry.

SCHOOL ADMINISTRATION.—In the Department of School Administration a great deal of stress was laid upon the fact that, after all, the efficiency of the school depends upon the coöperation of the child itself. And the whole aim and

function of all efficient school administration centres around the one purpose of securing the conditions which bring the child into this coöperative spirit. There are three important factors which must receive consideration in all school administration: (a) The school plant, including its equipment, course of study, and teaching; (b) the machinery to keep the child in school, including the inducements that can be presented to both parents and pupils; and (c) the child. But the child is the factor upon which all the rest focus. The child is largely a free and self-active agent when away from the home and the school, and no school plant or coercive agency will guide and guard these self-active periods unless they call forth his hearty coöperation.

SCHOOL BUILDINGS.—William B. Ittner, architect for the schools of St. Louis, urged ample room in school buildings as well as the need for large and carefully selected school sites. Adequate fire escapes in buildings over one story in height and, where possible, absolutely fire-proof construction he regarded as necessities in these days of great congregations of school children in one building. The buildings should not be over two stories high where greater heights can be avoided. Special precaution should always be taken against fire. This includes the entire isolation by fire-proof construction of the basement from the first floor, fire-proof construction of stairways with ample width and proper location for them, and the avoidance of hollow spaces in walls and ceilings. Such preventive measures are far better than mere reliance on escape in case of fire, because of the possible results of panic. While a school lot which provides from 30 to 40 square feet per pupil will answer, an allowance of 100 square feet per pupil is much better. He said he hoped to see the time when 10- and 12-acre school sites will not be uncommon.

Superintendent L. N. Hines, of Crawfordsville, Ind., said that the first tendency in present-day school architecture was toward a greater conservation of the health and comfort of the pupil. "The second is toward making the school-house attractive and an artistic inspiration to the youth that must come under the influence of what the school architect has done. The laws of the States are taking up the problems of school-house construction and

are insisting that buildings shall be erected that conform to all that is latest and best in the line of school-house construction. The nation is coming to see that the health of the children must be conserved, and, as a consequence, school architecture is called on to do its share."

THE TEACHING OF ENGLISH IN HIGH SCHOOLS AND COLLEGES.—A committee of the Modern Language Association, which has been making a careful investigation of means of greater efficiency in the instruction in English, made a preliminary report at the N. E. A., bearing especially upon the teaching of English composition. Some of the points emphasized in this report were:

1. English composition is a fundamental and necessary subject in all schools, and is of especial importance in primary and secondary schools. By means of oral and written expression on topics and themes, pupils may be developed in clear and orderly thought as well as in the merits of the language in which they clothe their thoughts.

2. Efficiency of method, as shown by many years of investigation and discussion, is chiefly a matter of laboratory principle and of individual instruction.

3. Under present conditions the results of English composition teaching in almost all schools are unsatisfactory and are the subject of general complaint.

4. In composition study, many of the themes and exercises must be written, and the average of efficient practice, stated in the average number of words written by a single pupil weekly, is for high schools about 400, for college freshmen classes about 650. Efficiency of method requires that all such manuscript shall be read, criticised, and corrected by the teacher, either orally with the pupil or in writing. Although some school administrators maintain that, though composition exercises must be written, it is not necessary to read and correct each one, the committee reports that teachers themselves feel it necessary to read each carefully and to make corrections either upon the manuscript or in conference with the pupils. The physical rate, stated in the average number of words an hour at which an average teacher can carefully read and correct manuscript, is about 2000. As the average number of pupils in English assigned to a single teacher is in

high schools about 130 and in college freshmen classes about 105, the time required of an English teacher for proper manuscript reading alone would be from 26 to 31 hours weekly. As long-continued criticism and correcting of manuscript is one of the severest tests of physical endurance to be found in teaching, the limit of full and continued efficiency in such work is about 2 hours per day or 10 hours per week. And under existing conditions no time is provided on the roster for such examination of the composition work; hence the impossibility of any teacher working under these conditions to do satisfactory work in English.

5. In determining the proper duty of an English teacher, assuming that he teaches both composition and literature, the standard of measurement should be, not the number of teaching hours, but the number of pupils. This number under average conditions should be for high schools about 50, for college freshmen classes about 35. Conditions may, of course, vary these numbers somewhat, but, if we regard English as being as much a laboratory subject as any of the sciences or industries, then the numbers stated are approximately correct.

6. English Composition, usually taught in colleges by the younger and less experienced instructors, should be taught by the best teachers of the department. Its importance and difficulty both demand this.

7. At present the average annual cost per pupil for teaching English in high schools and colleges is about \$7, or the lowest of any of the more important branches, science teaching costing fully twice as much per pupil.

There was some spirited criticism of this report, on the ground that there is, at present, a great deal of waste in teaching English, and that this should be eliminated before there is too serious complaint of "overburdened teachers." This waste comes from lack of standards and from poor methods. Efforts are being made to find standards for measuring efficiency in English teaching, especially for composition or English expression. These laboratory tests are being sought for along the line of: (a) The average time required to secure results from certain well-known efforts; (b) the best methods of securing these results.

Two things should be favorably affected by the teaching of English—written and oral expression. Ability in these is best developed by laboratory methods, especially such methods as appeal to the pupil's self-activity and which, during corrections, bring the pupils and the teacher into conference. Observation seems to indicate that foreign pupils demand twice as much time as the native born to secure equal results in English. For these pupils especially there must not be too long an interval between the writing and the correction. In all cases, however, a conference in regard to improvements and corrections yields the best results because it serves to "rewarm" the subject. And these conferences should be, for the most part, class conferences, in order to secure the benefits of the stimulation and assistance of the group, as well as to avoid the waste of time and effort involved in the repetition of similar criticisms.

As writing is not as natural to a boy or girl as speech, oral expression is more apt to arouse the interest of the pupil than written. Besides, oral expression has the stimulus that comes from the presence and criticism of the class. It also presents the benefits that come from hearing the corrections of errors and from the good work of others. Successful oral work rouses effort and not only develops fluency but also clearness and energy. After oral discussion and repetition, and the due noting and correction of errors, the written work on the same theme may with profit follow. After all, the most important thing in English expression is to have ideas. And the oral work affords the best opportunities for getting and shaping these for written expression. Debate, discussion, and interchange of ideas in the oral work develop freedom and do much to restrain the stilted forms of expression so common to merely written composition. And, above all, this oral work does much to cut down the amount of written work to be corrected. Another saving can be effected by cutting down the amount of English work demanded of high-school and freshmen students. These courses are overloaded. Better attempt less and do it well.

SCHOOL GARDENS.—The president of the School Garden Association of America, Van Evrie Kilpatrick, made

a plea for school gardens to be attached to every school, so that there might, in season, be daily breaks in the routine of the class-room during which pupils could get fresh air and sunlight as well as valuable practical training. "Everywhere in this land our children are being hurried from super-heated chambers to super-heated class-rooms," said Mr. Kilpatrick. "Every tingling muscle is subdued in gloomy shadows. The lad who refuses to be subdued is 'incorrigible.' The present-day curriculum may be all right, but could not little fellows learn just as much if they were forced to remain in-doors but half as long and given the rest of the time to play and work in the open air? Any teacher knows that a child will learn the 'Three R's' much more rapidly if he is kept in a responsive attitude. It is just as incumbent upon a city to supply land for out-of-door education as it is to erect buildings for in-door education. Every school should have a garden in which the children may work and play, and our appeal to the nation is that our children may come in closer contact with Mother Earth."

RURAL SCHOOLS.—State Superintendent Frank W. Miller, of Ohio, called attention to the fact that since the teaching of agriculture had been introduced into the rural schools they had acquired a distinctive character of their own instead of being "weak imitations of city schools." He also spoke of the influence of the agricultural exhibits of the schools in bringing about a new attitude among the country people, and said that they were helping to secure from the farmers a more willing and generous support of their schools. "Farmers are more generous in supporting schools which teach farm principles, farm problems, and farm work." He then added, "That the boys and girls take more interest in farm work after studying agriculture in the schools has been demonstrated. The teaching of agriculture has also tended to raise the social status of the country people by disclosing the wide range of knowledge necessary to become a successful farmer. This has resulted in greater self-respect and greater respect for their own institutions and schools." One of the things that makes the teaching in rural schools unattractive to the non-resident teacher is the difficulty in securing a suitable

boarding-place. An effort is being made in the State of Washington to solve this by establishing centrally located boarding-houses where the teachers of adjoining school-districts can find companionship and congenial surroundings. These "neighborhood houses," as they are called, were reported as a great success and as helping materially in solving the difficulty of getting and holding competent teachers for the rural schools of that State.

Although the rural regions possess many natural advantages, the school advantages in most places are very meagre. This is largely due to lack of funds. The farmer no longer lives on the products of his farm, but, like the city man, he buys practically everything in the way of food, clothing, and shelter. Hence, like the city dweller, he must now live on his profits. These are so low in most places that he has little or no surplus with which to support schools and churches. With meagre returns, the work and life become hard, and little time or thought is given to sanitation and recreation. So that, on the whole, the condition and opportunity of children in the country, are worse and more neglected than in the city. However, consolidation of schools and transportation of pupils are helping to solve some of the rural problems. This union of interests in contiguous weak school-districts is bringing better buildings, badly needed supervision, closer grading, better teachers, and more of the vocational training that is so badly needed. Guilford County, N. C., furnishes an excellent illustration of this, for it is divided into three school sections, each having its local supervisor, its consolidated elementary schools, and a high school with a department of domestic science and a department of agriculture. The health of the pupils is looked after by a physician who devotes all his time to the work. These high-school buildings are also expected to be the social centres of their respective communities. In Oregon rural supervision has now reached the point where each school is visited once in six weeks. It is only by such means that the rural school can solve its problems.

North Dakota has introduced a plan which promises greatly to improve the conditions and general welfare of its farmers. An annual State fair, lasting a week, is held,

to which two young farmers from each county are brought and instructed during the week on the points deciding the award of prizes in the different agricultural exhibits. They also are afforded all possible opportunity to learn how to produce the excellent results attained by the prize winners, with the expectation that they will not only practise what they have learned but spread the good influence to others. But even with improved financial conditions the rural districts, or at least many of them, will need increased State or Federal aid. Some of the advantages urged in behalf of the Federal aid were that while the revenue of the States is only about 350 millions per year, the revenue of the Federal government is a billion dollars; hence, the latter is much better prepared to render substantial aid, especially since some of the States have small surplus revenues as compared with their school needs; the Federal government can get at real conditions and needs more surely, more continuously, and more effectively than can organizations, or even the States themselves, because it can do it without sentiment and with abundant authority; it is the only uniform and scientific way to get at school problems that are of supreme importance to the welfare and safety of the nation; and, finally, the Federal government can gather and disseminate useful information on school matters gathered in foreign countries as well as at home along the lines that would meet the specific needs revealed by its study of the rural problem. Commissioner of Education Claxton said that the Federal government during the past 75 years had given nearly 98,000,000 acres of land to the States for school purposes, and that, on the same basis, it could now well afford to give \$12,000,000 per year to aid the cause of education. Denmark was cited as having probably done more than any other country toward solving its rural school problem.

The opinion was expressed by Herbert Quick, the editor of *Farm and Fireside*, that the new kind of rural school that is coming into existence will be a social centre for the community, but it will be this largely on an economic basis. "This economic basis for social centres is offered by the new kind of rural school which is coming into existence—the school which in all its teaching is cor-

related with rural life. The rural school must become the laboratory of the district. Farm records must be kept there for the district farms by the advanced pupils. Comparisons will thus disclose the sort of farming which is most profitable." And the general curriculum, he declared, "which makes the rural school a bad copy of a poor city school" is far less cultural than this newer idea.

SECONDARY SCHOOLS.—There was a reaffirmation, in the meetings of the Department of Secondary Education, of the idea that elementary and high-school education should be organized under three six-year divisions instead of the present prevailing arrangement: (a) 6 years of elementary education; (b) 6 years of junior high-school and (c) 6 years of senior high school work. A strong disposition was shown in favor of longer school hours, with a view of better counteracting undesirable outside recreational influences and of providing additional opportunities for vocational training. The fact that the high school is a part of the great social unit in which change and evolution are at work was recognized. These changes are demanding composite high schools in which pupils may be brought nearer to life and fitness for it than ever before. It is no longer sufficient to run them merely as college preparatory schools, although the cultural side of education may not safely be neglected. The reorganized high school is especially to consider and provide for the things peculiar to the needs and characteristics of adolescent boys and girls. The high school is rapidly becoming the motivizing force for the elementary school; it must therefore present inducements that appeal to all classes of pupils. The social and recreational life of high-school pupils are also exceedingly important and must not be neglected. But fraternities were frowned upon as a part of high-school social life, because they are only for the few and therefore violently unsocial. They indicate, however, a desire of youth for social group activities which may and should be utilized for better things than can be gotten out of fraternity life.

But by far the most important thing discussed at these meetings was the need of some form of preceptorial work which will make the teachers responsible for the whole

high-school life of their students. As some one remarked, the pupils in our high schools have too long been responsible to their teachers; it is now high time that the teachers become responsible for their pupils. The plan suggested was to make each professor responsible for a group of pupils, in whose conduct and general high-school life, as well as their studies, he should take an interest. It was also suggested that every modern high-school faculty should be divided up into committees responsible for learning the needs and desires of the community served by the school. With well-trained sympathetic teachers looking after the welfare of pupils and community, it was felt that the life-interests of all would best be served—skilled instructors could best detect the lines of work for which their pupils are best adapted, and the combination of the interests of the home and the school would best shape the curriculum and activities of the school.

HIGHER INSTITUTIONS OF LEARNING.—Chancellor Samuel Avery, of the University of Nebraska, made quite a drastic arraignment of our American universities when he said that in many cases students are extravagant idlers who, being able to afford it, spend their winters in fashionable universities, which they look upon as attractive winter resorts under the guise of institutions of learning and culture. The blame for such student conditions he laid at the feet of the faculties of the universities who, for various reasons, are not inclined to come into intimate touch with the individual student. "A student nowadays must be very brilliant or very troublesome before the college president becomes acquainted with him at all," Chancellor Avery said. "The enormous influx of students has changed the character of the student body. In the early days, practically all college students came from cultured homes or from homes animated by an aspiration for higher things. The students were a selected group in character, training, ideals, and antecedents—a thing vastly different from the student bodies of to-day. The college die has become so worn that we can scarcely find its impress on any of its alumni. The unrestrained life of American young people—a life more buoyant, more exuberant, and

more uncontrolled than exists anywhere else in the world—finds its social expression in our schools. The favorite ready-made clothing advertisement is a picture of a supposed group of college men."

The prevailing system of handing in written work he regarded as "the source of an enormous amount of dishonesty. I cannot but feel that our faculties are somewhat responsible for the growth of 'cribbing.' Dishonesty is one of our most serious problems, because, unless surrounded by an atmosphere of intense honesty, even classical culture may produce such leaders as Abe Ruef." To remedy these unpromising conditions, he urged that college authorities must remove all possible temptation and must vigorously insist upon high standards of morality as well as high standards of work. "College authorities must do more than they have done heretofore. They must see to the elimination of graft in student organizations; must see to it that favors and promotions are not passed out as matters of social or organization favor; must prevent the existence of societies whose memberships are concealed. The ideal university is an institution without snobbishness or aristocratic tendencies, without idleness, without dishonesty, without vice."

CONTINUATION SCHOOLS.—E. G. Cooley, former superintendent of the Chicago schools, said that the great industries literally "swallow up" the children after they leave school and practically block any further great development on their part. Their parents are so engrossed in earning the daily bread that they are unable to give their sons and daughters the needed guidance and help. "A fundamental defect in our present school system results from our custom of terminating compulsory school education at 14 years of age. Our school training is not carried far enough at the present time to reach its real aim, to provide the instruction and training necessary for the proper solution of the problems of every-day life. The youth who leaves school at 14 is very apt to lose and waste almost the entire result of his 8 years of elementary school training before he is of age. Hence the necessity of carrying forward the school instruction beyond the years of

compulsory attendance is becoming more and more urgent. Besides, the home has ceased to exercise the educational power which characterized it in the past. It has ceased to be the workshop of the parents; the father, and often the mother, are frequently taken from the home by their daily work. The old work-community of parents and growing children has disappeared. The great cities and the great industries now take the youth almost immediately after the completion of the elementary school period. It is clear that great demoralization will take place if the care of society and the States does not take the place formerly occupied by the home, the parents, or the master in the trades. Society must take charge of the vocational education of all classes and not ignore the changes modern life has produced in the education furnished by the home.

We are beginning to realize in America that the compulsory age of school attendance is not long enough. The fixing of the age of 14 as the time when compulsory attendance shall cease is now largely a matter of tradition. While there are cases of economic hardship that might seem to justify the early entrance of the youth upon the task of bread-winning, there is no good scientific reason for fixing upon the age of 14 as the proper time to do this. Wisconsin has already raised the compulsory period to 16 and, in Idaho, youth continue in school until they are 18 if they have not completed the required eight grades before. The idea that every youth of our land must be a producer, as well as a product, before the school entirely releases its hold upon him is rapidly spreading and, no doubt, will greatly influence all school legislation of the near future, just as it has already greatly influenced educational thought and effort everywhere. The maintenance of the public school from public funds has always been justified on the basis of the welfare of the State and the Nation, and yet pupils are permitted to sever their connection with the school at 14 and before they are at all well fitted for effective citizenship. A German writer has well indicated that modern industrialism will become virtual slavery unless it be surrounded by the general education of all of the people. A State possesses no higher resources than the powers and possibilities of its people. But it also contains no greater

menace to its welfare than may result from assuming that it can safely doom great numbers of its youth to unskilled, unenlightened labor."

THE TRAINING OF TEACHERS.—A higher purpose than preparation for the mere imparting of knowledge was held up as an ideal for the normal schools by President W. S. Dearmont, of the Missouri State Normal School. "Given men at their head and in their faculties of real power and high ideals as leaders," he said, "the normal schools must recognize the public welfare as the chief end of all training. They must recognize that they are not as a first consideration training teachers to teach special subjects, but they are training teachers to train in turn the future men and women of this country for citizenship, for social efficiency, for moral and religious responsibility. The teachers trained in the normal schools must in their several spheres of activity be real leaders. They must distinctly recognize as the chief end of their teaching the training of their pupils for the public welfare."

Emphasis was laid upon the importance of having sympathetic clear-sighted critic teachers in teacher-training schools, the kind of critics who naturally appreciate the difficulties of the learner and are able to place their fingers upon the causes of weakness or failure. Much of the beginner's difficulty arises from not being sure of what to do or of the ability to do, from a lack of the resources that are well known to the experienced teacher, and from an intense desire to succeed. It is well, one speaker said, to lay responsibility on the learner only gradually,—probably, as a rule, only after she indicates she would like to try. The need of having the departments of superintendence exercise supervision over the critic teachers of their normal schools was also emphasized.

MORAL EDUCATION.—Professor William C. Bagley, of the University of Illinois, said that prison statistics clearly show that it is far better from a moral stand-point to belong to any church than to belong to no church. "By investigation of the penitentiaries of several States, including Illinois, Iowa, Minnesota, Nebraska, and Indiana, it was found that the churches which laid special stress on religious education in the Sunday-school or in the parochial school

stood in the better half (in these statistics), while the churches giving little heed to such educational training showed up the most unfavorably."

H. C. Anderson, of Milwaukee, made a strong plea for the proper training of the impulses of the child. "If rightly viewed," he said, "the native impulses of children form our principal educational stock in trade. Education may be considered as nothing more nor less than the direction of impulses toward ends that are valuable. The training of children's impulses leads to the formation of useful habits and the gaining of right ideals of conduct. If this is true of the normal child, it applies with equal if not with greater force to the education of children physically or mentally defective. Interests follow the lead of impulses, and there is a wide difference between educating a child in accordance with his nature and in attempting to educate him in opposition to it."

A NATIONAL UNIVERSITY.—The establishment of a great National University at Washington to give opportunity for advanced research work, similar to that afforded by several of the more important European universities, was strongly advocated at one of the general sessions of the N. E. A., by several of our most prominent university presidents. It was explained by the speakers that bills looking to the founding of a national university have been introduced in both branches of Congress. It was declared such an institution would not compete with other colleges and universities, it being designed not to award degrees but to afford opportunity for advanced research work for college graduates who might receive credit for such work and corresponding honorary degrees from their own universities.

"Education is primarily a national function," said Doctor James. "It is in this sense that it is of fundamental importance to the nation as a whole. If there is no other way to secure it except through the coöperation of the federal government, then we should have this coöperation. To paraphrase Lincoln, this government cannot remain permanently free if it is based on a population half literate and half illiterate. All the people must become educated to the necessary point, or, in a sense, all will become uneducated,—that is, the value of the educated half will be

largely lost. When education is as regularly the subject of national debate as the tariff, banking, and currency, we shall take another long step forward. However great State and private universities may become, they can never incorporate in visible form the national ideal of university education. No benefactor can do for a nation what it must do itself. The national library and museums are lying largely fallow waiting for the country to take fullest advantage of them. The country would thus be helped immeasurably, and even the world itself through which our ideals could be made to permeate. The institution is coming. It would be an important element in making this land the leader of the world in art, in science, in education, in civilization."

"It is proposed," said another speaker, "to establish an administrative division, the duties of which shall be to make the facilities of Washington known and to guide the students to them. If desirable this division may be made a part of the bureau of education. If this plan is adopted, it cannot be gainsaid that science in America will receive a great impetus and that the scientific bureaus at Washington will be inspired to escape from their bureaucratic bonds, at least in some measure, and, if so, they will make larger contributions than heretofore to the advancement of learning."

"The university would be governed by a board of directors freed from politics," said President Baker. "It would coöperate with the private and corporate universities and offer opportunity for study of the vital problems of the nation. We need a national university to educate congress. Its influence would react on the whole country, and the political atmosphere would be purer. Our lawmakers, the progressives and the reactionaries, must find a common ground. If they get further apart, we must face a serious problem. A great national university situated at the seat of government would exert a vast educational influence which would mean better laws and higher civilization."

President Thompson said in part: "Agricultural education is now popular with our members of Congress. Their interest has increased wonderfully since they discovered a

few years ago there were votes behind it. A national university would be a move in the line of conservation. The great educational resources of the government are not available for our corporate colleges. The federal government derives vast revenue from the States. It should return part of this revenue in educational work."

SEX-JEALOUSY.—Owing to an article in one of the Chicago papers, which stated that sex-jealousy would play an important part in the election of the president of the N. E. A., the *Inter-Ocean* of that city published an editorial on the whole sex question, which well deserves thoughtful reading by both sexes. The following is quoted from it: "This is an unfortunate but natural situation. It merely illustrates the well-known fact that the pursuit of the same enterprises by men and women in common tends to create sex antagonism by multiplying the chances for friction. To put it differently, the clearer the line of division between the duties and responsibilities of men and women, the less the chance for friction and sex antagonism, and the greater the chance for concord and harmony in their mutual relations.

"The ideal condition, as regards the relation of men and women, would be realized where the men and the women had entirely different duties and where each sex found in the discharge of its separate duties the satisfaction of all its desire for activity. Then the family would have true harmony and sex antagonism would be unknown in society. But, unfortunately, we are confronted with the fact that such ideal conditions do not prevail. We see on all sides thousands of women forced to earn their own living by industrial pursuits more or less in competition with men. We also see many women, married and unmarried, who do not find satisfaction in the more feminine pursuits. Under such circumstances, we simply have to recognize the fact, unfortunate as it is, that certain conditions more or less tending to produce sex antagonism exist among us. We must also admit that no remedy for these conditions is likely to be proposed in the near future. But, at the same time, we may properly decline to be a party to the creation of new conditions tending still further to

create sex antagonism—conditions which are called for neither by the industrial situation of women nor by any consideration of abstract justice. We may very rightly decline, for instance, in the absence of better reasons than we have at present, to throw into every family in the land such a fruitful cause of sex antagonism as woman's suffrage is certain to be if women ever come to take their politics seriously. No greater misfortune could befall a country than to have the men and women busied with similar ideals, aims, pursuits. The jealousies and divisions that most men leave on their thresholds at present would then sit by their firesides. A thousand causes of friction now unknown would arise. Sex antagonism, now largely dormant, would awaken to new life under such circumstances. Of course, there are no doubt many militant ladies who revel in the idea of sex antagonism, who feel it is their highest duty to arouse it, who think that women will never have their full rights until they are doing everything that men do. Such women know not what they do. For every ounce of political 'rights' they secure they are likely to generate pounds of unhappiness. The fact that the contests in even an organization like the National Educational Association may be fought out along sex lines shows how ready sex antagonism is to spring to the surface whenever the fundamental condition of similarity of pursuits is realized."

Department of Superintendence of the National Education Association.

The Department of Superintendence and such other affiliated departments of the N. E. A., as The National Council of Education, The Department of Normal Schools, The National Committee on Agricultural Education, The National Society for the Study of Education, and the Society of College Teachers of Education, held their meetings in St. Louis, February 26-29. Statements from the most important papers and discussions presented are here grouped under the general headings of Economy in Education, the Training of Teachers for the Schools, Health

Problems in Education, Vocational Education, Rural Education, and the Cost of Elementary and High-School Education. Much of the material was secured from abstracts prepared by Frederick K. Noyes and published by the Bureau of Education at Washington.

ECONOMY IN EDUCATION.—The belief was expressed by President James H. Baker, of the University of Colorado, that at least two years could be saved in the whole period of education by a more economic use of materials and methods. Not by "shortening the college course" nor by lowering the standard, or cramming and hurry, or lessening the period for those who early turn to vocations, but by educating without waste. This he believed could be done without worry and in a way that would strengthen scholarship and tend to keep the class of pupils who now leave before their formal education is completed in school longer than is done under existing conditions.

Superintendent James H. Van Sickle, of Springfield, Mass., maintained that much time could be saved in education: (*a*) by avoiding the idea of giving the same preparation to all, regardless of differences in aptitude and in the character of the life to be led; (*b*) by agreeing upon the essentials of a course of study and upon common standards of measurement of results; and (*c*) by paying especial attention to choice of principals for schools, and to their guidance and further development after they assume their positions. On the score of (*a*) he said that classifying the grades above the sixth as secondary, instead of elementary, would facilitate differentiation of work in the upper grades and permit pupils to make more direct preparation for business, the industries, or professional life, as they might choose. In regard to (*b*) he said that there must not be a narrow definition of "essentials." "Fixed knowledge of fundamental processes is no more and no less essential than mental attitude, habits of thought and emotion, and working ideals. Something more than drill is needed to get these ingrained. The selection of suitable subject matter for work and study in the grades; the organization of this material with reference to the periods when important instincts, interests, powers, and capacities become prominent, the development of desirable ideals,

motives, and habits in the pupils—these things must be considered when we undertake to say what are the *essentials*.”

In considering waste in education Superintendent Van Sickie said that nothing looms larger than the preliminary and after training of suitable principals. With salaries that will secure select persons of tested strength and character for these positions, no effort is expended to better advantage in checking waste than that which the superintendent devotes to conferences with his principals. The principal can either make or mar the most carefully planned scheme, and in his hands rests the success or failure of any plans that may be made for economizing time and effort in elementary education. He also criticised the plan carried out in some recent studies of retardation, of determining the proper grades of a child in school on the basis of age alone. Such fallacies he said would never help in placing education on a scientific basis. What is needed along such lines is a scientific examination of each child's physical state and mental power at the beginning of its school life, with the view of basing all the work on the results thus obtained.

Superintendent W. H. Elson claimed that approximately one-eighth of all money spent on public education is expended on taking children over their school work a second time. This waste he claimed is the result of “maladjustment of study courses and promotion schemes to the abilities of children.” The result of this maladjustment is expressed in terms of withdrawals, retardation, repetition, and non-promotion. And when the school is tested for efficiency on the basis of its ability to carry children through its course on time, it shows great waste. To remedy this, methods and standards of promotion must be made more flexible, and subjects, departments, and schools must all be standardized. He also urged the preparation and keeping of such school records as would aid in working out the remedy.

Superintendent W. L. Stephens, of Lincoln, Neb., presented the claims of departmental work for securing effective teaching. He claimed that the tendency toward departmental work in the more advanced elementary grades

is pronounced, because of the following prevailing conditions: (a) The difficulty of securing good teachers for the upper grades; (b) the preparation that such teaching affords for the larger freedom and responsibility of the high school; and (c) the lessening of waste that attends unskilful teaching, as well as the way in which a teacher who specializes in only a few branches can vitalize them for the pupils. In his schools, he said, the essential features of the plan adopted for departmental work included such things as—restricting its use to the sixth, seventh, and eighth grades; establishing only the four distinct departments of mathematics, geography and history, grammar and composition, and literature; with music, art, and writing each connected with some one of these departments and each of the four teachers being responsible for the spelling, civic and moral training, and hygiene of all his groups, as well as for the correct use of English in all the work. Each class has a teacher, termed the class sponsor, who is responsible for its general conduct and attendance and with whom it spends in recitation and study at least one-third of its time. Weekly conferences of the departmental teachers with the principal are held for the purpose of unifying and correlating the work and to discuss the needs of individual pupils.

With avoidance of over-departmentalization, frequent conferences to determine the needs of individual pupils and to correlate the work of the several departments, and with a hearty sympathy for and belief in such departmental work on the part of both teachers and principals, he believed better results can be secured than by the single-teacher plan. "The discipline will be more wholesome, class-rooms better equipped, stronger unity and force in school management evolved, better preparation for the larger responsibilities of the high school acquired, a more skilful corps of instructors developed, whose teaching will be vitalized by the spirit that nourishes the life and growth of the child for whose welfare the school exists."

Superintendent D. H. Christensen, of Salt Lake City, emphasized the need of changes and adjustments in courses of study to meet the needs and capacities of pupils who are radically different from the average pupil. He said that it

is manifest that the difficulty of meeting the needs of the individual pupil increases as he moves upward in the grades. The nature of the prescribed work is such as to appeal to the interests of practically every child up to the lower part of the grammar department. But in the fifth and sixth grades marked personal tendencies and aptitudes begin to assert themselves, this being for most a transition period of life. Natural bents and aptitudes are often easily discerned as early as the seventh grade. Many educators think that the disinclination to attend school that begins to manifest itself in the fifth and sixth grades is largely due to the fact that the subsequent work has so little regard for these aptitudes and inclinations and therefore fails to appeal to the pupils of those grades. Even if the work can be made to appeal to the average pupil, there are always some so far below the class standard as to need a variation from the regular work. For these, he said, the so-called ungraded room is an excellent thing, because they can there receive more nearly individual instruction and conditions can be made flexible enough to meet their needs. Those who are deficient mentally, both for their own sake and for the sake of their associates, must be segregated and have a course of instruction that is quite narrow in its scope and which aims largely to give motor and sensory training. However, it is well to remember that mental deficiency in any individual is more apt to be fractional than integral. "That is to say, contrary to the generally accepted theory, it is found that the mind is not defective as a unit in its sociological reactions, and that, on the contrary, the mind might be extremely defective in one field of sociological reactions and at the same time entirely normal in other large and complex fields of sociological reactions. For example, a child might be arrested in school progress and be extremely defective in scholastic ability; but at the same time such a child might be normal, or even supernormal, in social development or in vocational ability, or in ethical habits, or in religious sentiments." Hence school systems that hold exclusively to mass instruction, and which provide no means for attending to those who habitually show unsatisfactory development, are responsible for educational waste.

Superintendent Martin G. Brumbaugh, of Philadelphia, urged a more economical use of the school plant, especially in urban communities. "The school plant, with all its physical appointments," he said, "belongs to the people, and should be freely used by the people for all sorts of educational activities that are not yet demonstrably within the range of the school. We are passing rapidly from the old and narrow idea that the school building is merely a place to educate children of a certain age, and, in a defined way, to an understanding of the fact that school-houses are the people's forum—to be used by them for every wholesome intellectual, social, recreational, and moral purpose that makes for the common good.

"We are coming rapidly to the opinion that the school building should be open day and night for every legitimate use that the community as a whole can vision." Public education, he said, is the State's effort to promote and to provide efficient citizenship. And this is a complicated problem in an urban community in which all activities of the individual are trenched upon by a multiform and highly organized economic situation. It can only be accomplished by training each individual to coöperate freely and fully with all other individuals. The State has committed the work of accomplishing this for the child to the school. But there are other agencies at work upon the life of the child, and the school has learned that to educate the child it must reach beyond the child; that to safeguard the interests of the child it must affect in a positive way the home and the community in which the child lives—it must broaden the influences, the hours, and the age of its educative work. And the essence of all this school training must be coöperative and not competitive if the best citizenship is to be developed in any community. To accomplish this work these well-equipped expensive school plants of our cities need to be in use day and night.

Commissioner Calvin N. Kendall, of New Jersey, then discussed the efforts that have been made to test the efficiency of school systems, especially the work of educational commissions. As "efficiency" seems now to be the popular catchword, it is only natural that efficiency tests should be demanded and should excite a great deal of

public interest. "In this practical age there is sure to be a search for tangible results of educational processes." However, there is in the realm of the intellectual and spiritual, with which education has so much to do, a very large residuum, "the value of which cannot be measured by figures and tables. As a result of my observation of teachers in action in many schools, I am skeptical of finding, by any known test or commission report, a definite measure of the value of much of the teacher's real work."

But with these limitations, he said, an educational commission can often afford valuable aid to any considerable system of schools by measuring its efficiency in things that can be shown by figures and tables—by revealing the extent to which its administrative methods, its organization, its course of study, its school-houses and equipment, are in accord with what has come to be widely accepted as the standard for American schools. It can also, by observing the teaching, indicate the general spirit pervading the schools. The investigations of such commissions may be of constructive value: (*a*) in revealing to the school board and to the public the strong points of the school—features which are locally unknown or unappreciated; (*b*) by pointing out the desirability of certain improvements or changes, "which the superintendent has perhaps urged in vain upon callous boards or an indifferent public;" (*c*) by showing the need of more money for the schools. In his judgment the investigation should also include political conditions. As such a commission should approach the problem from an independent, unprejudiced point of view, it may be able to enlarge the vision, clarify the views, and recast the opinions of the superintendent himself in regard to some features of his many-sided work. "Much depends upon the manner in which the commission is appointed, or, rather, at whose instance it is appointed."

Superintendent William H. Maxwell, of New York, in a forcible address before the City Club of St. Louis, during the period of the meetings, made a strong plea for the use of school buildings as social centres. He especially emphasized the great waste resulting from closing these expensive public buildings for so many hours of the year. "New York has invested \$150,000,000 in school buildings and

sites," he said. "Until we established social centres, the buildings were used but 1000 out of 8640 hours a year, or about 12 per cent of the time. In 1911, in New York, 8,943,865 persons took advantage of the opening of school buildings for social activities at night, and we have just begun. Children, especially those in large cities, need carefully supervised recreations, for vicious tendencies pertain to masses of population centred in cities. Churches are not doing much toward recreation. Pews in churches are fastened down, so that the only use of the edifice is to listen to the preacher, and you can't talk back, either. Desks in most schools are fastened down, and the rooms are used only for writing and reciting. There is a third recreational agency better than the church and the parks of a municipality. It is the school in every section of the city. Recreation under the control of school authorities is more likely to bring greater results, because the right kind of people are in charge. Politics has less to do with schools than with parks. Public school buildings and public school machinery are needed for social centres. In New York we have evening schools and a lecture system. In every school in New York a lecture is given at least once a week, and is attended by pupils and their relatives. Persons of distinction—college professors, clergymen, lawyers, etc.—speak, and they have told me these audiences demand their best efforts—better even than students of a college require of a lecturer. Last year 1,250,000 persons attended these night lectures. Girls have dances in the schools at night, and on one night each week they are permitted to invite their men friends, those who are properly vouched for. I have attended these dances and never yet have seen the Grizzly Bear or the Turkey Trot. The deportment of these children would not have misbecome any drawing-room in America. We have turned 12 of our roofs into playgrounds, and about 4000 children crowd on to each roof every night in the hot months. We have baths, vacation schools, and in-door playgrounds, the latter being built in the basement of every school we are erecting or will erect. The in-door playground can be used every hour of the year, and hence is of greater benefit than the out-door playground."

THE TRAINING OF TEACHERS FOR THE SCHOOLS.—President W. J. Hawkins, of the Warrensburg, Mo., State Normal School, contended that the normal schools should enter upon the field of educational research through which alone the problems of education can be solved. This research work should no longer be restricted to the schools of education of the universities, because normal schools have in their faculties men and women who can pursue such work and these schools are more closely associated with the actual school work than are the universities. Some of the problems that he named as demanding solution are: (*a*) adapting the schools to meet the needs of the child in his relations to the times in which he lives; (*b*) how to fit teachers to become scientific investigators so that they may be self-helpful in discovering and remedying their own difficulties; (*c*) finding the basis for determining what shall be included in the various kinds of courses of study; (*d*) securing scientific determination of values in elementary and secondary subjects; and (*e*) in general to discover and rediscover the facts, laws, and principles which will enable us to demonstrate to the people that as educators we are well trained experts. Material for such work could readily be secured from the schools, and the training and model school department of each normal school would serve as a valuable pedagogical laboratory for its investigation.

President Homer H. Seerley, of Iowa State Teachers' College, called attention to the fact that normal-school statistics are very meagre and imperfect, as compared with those from other institutions, and said that this made it difficult for them to secure the national recognition they deserve. These statistics he said should include figures on income, expenditure, faculty, students, training department, graduating class, per capita expense of instruction, course of study, library, and plant and equipment. However, for these statistics the normal schools should be classified on some acceptable basis of differentiation, and suitable statistics should be worked out for each class.

President Eugene W. Bohannon, of the State Normal School at Duluth, Minn., discussed the relation which the normal school should bear to the elementary curriculum. Two attitudes are possible,—one that teachers shall be

prepared to be mere administrators of curricula as they exist; the other, that teachers be so trained and inspired that they will be a living embodiment of the things which should be included in these curricula. "If they are in the teacher they will be in the school, and if they are not in the teacher they will not be in the school even though they are in the course of study." It is imperative, therefore, that the normal schools develop in teachers the conception and the spirit of courses of study as they should exist. But this involves the thought that normal schools shall know and thoroughly understand the needs of the children for whose instruction they are preparing teachers. While some adjustment in his training must necessarily be made by the teacher, to meet conditions where at first the school has neither the ability to appreciate the best procedure nor is willing to concede all to his interpretation of the course of study, yet, after all, "the substance of the curriculum should be an inherent part of the knowledge and experience gained at the normal school, and should be so thoroughly integrated with them as to make any special effort at adjustment unnecessary. For that reason the curriculum of the normal school itself is of the greatest consequence."

In the several addresses on the high-school preparation best adapted to candidates for normal-school training, such points as the following were emphasized:

1. The character of high-school instruction is almost everywhere dominated by college traditions and ideals. This has determined the policy of the high school in its choice of teachers, which is to select them from among the college graduates who naturally know best the preparation needed for college. But the modern high school must front the actual needs of life as found in shop and store, in farm and home—as found in the general physical, industrial, and social possibilities of men and women, as well as in their cultural needs. As teachers in modern elementary schools must also meet these needs, the fundamental defect in the preparation of students for normal training is the result of the conscious aim of the high school to be above all else a place of preparation for college. Normal-school faculties are pretty well agreed, said President David Felmley,

of State Normal University at Normal, Ill., that in the high-school preparation for future elementary teachers, there should be less foreign language, less algebra and geometry, more arithmetic, more biological science, more geography, more of drawing and other manual arts, more music, reading, and public speaking, than we ordinarily find in the high-school course. Instruction in these subjects must be more thorough and vital—more closely associated with daily life experience. “The sciences should be so taught that the student will feel every day that his health, his happiness, and his success in life depend upon the truths they contain. They should explain natural phenomena and industrial processes, fuels, foods, sanitation, and the rules of right living.”

2. There was some disagreement with President Felmley's view that there should be special provision made for prospective teachers in the high school, partly because it would necessitate the selection of a vocation and consequent differentiation in work at too early a stage, “before the pupil has adequate opportunity for self-discovery,” and partly because it would tend to narrow the academic work of the pupil to those studies deemed of practical use in the vocation selected. Like law and medicine, teaching requires scholarship and culture as a basis for technical and professional training. Scholarship must in no way be disparaged in the teacher's calling; and it will be a splendid thing when a very large percentage of even the elementary teachers have been mentally and spiritually enlarged by the culture of the college.

3. Another speaker claimed that it is not so much a different teaching and training that are wanted in the high school as it is a different measurement of accomplishment and a different treatment and management of the subjects of study in the normal school itself. “There is much room for adjustment, for review of principles, for reconsideration of things that are fundamental, for sympathy with incompleteness and imperfection, as all these things will be found in the average high-school graduate.”

4. It was also claimed, from the high-school point of view, that the high school has a general function and that

this is not concerned with specific preparation for any line of work. "The function of any high school is to interpret life in terms of the needs of the local community, whose it is, by whom it came into being, and for whose supreme service it exists."

Professor James E. Lough, of New York, made a strong plea for pedagogically trained teachers for our higher institutions of learning. "The tardy recognition by colleges of the importance of pedagogy," said Doctor Lough, "is due largely to the belief, still prevalent among college professors, that the mastery of a subject carries with it the ability to teach the subject, all pedagogical study being therefore useless or worse than useless. The falsity of this theory is now generally accepted, even in collegiate circles, and I believe the time will soon come when our graduate schools, which are all largely professional schools for the training of teachers of collegiate subjects, will not merely admit pedagogy to the graduate rating, but will actually make the study of pedagogy a requirement for advanced degrees. The Ph.D. will then stand not only for the mastery of a subject, but also for some acquaintance with the principles and methods of teaching it."

Doctor George F. James, of the University of Minnesota, made a similar plea for better-trained teachers for high schools. "The teaching in the high schools," he said, "represents too often a training which is not much beyond that of the pupils in the same school in respect to years of study, and is not infrequently almost lacking in the qualities of special professional discipline. The general question of the training of teachers for public high schools is one of the most vital educational problems of the country. Good teaching is fundamental to school efficiency, and beyond question high-school teaching compares unfavorably with that which is to be found at every other stage in the system of public instruction. The teaching in higher institutions is admittedly much inferior to what it should be. This is due in great measure to the general failure of candidates for higher positions to prepare themselves specifically in the art of their life work, their failure to give serious thought to the methods and principles of presentation, in a word their failure to think of themselves in their

primary function as teachers. The best teaching in the public schools is found in the kindergartens and in the primary grades."

HEALTH PROBLEMS IN EDUCATION.—Doctor Thomas D. Wood, Professor of Physical Education in Columbia University, spoke of the health of the children as the most valuable asset in our capital of national vitality, and of the public school as "the logical, the strategic, and the responsible agency" for the conservation and enhancement of child health. As proof of the need of well-organized efforts to give pupils the best possible opportunity to escape weakness and disease and to realize the best attainable physical vigor, he cited the fact that, out of the 20,000,000 pupils in the United States to-day, (*a*) from 1½ to 2 per cent, or 400,000, of them have organic heart disease; (*b*) probably 5 per cent, or 1,000,000 at least, have now or have had tuberculous disease of the lungs; (*c*) about 5 per cent have spinal curvature, flat-foot, or some other moderate deformity serious enough to interfere to some degree with health; (*d*) over 5 per cent have defective hearing; (*e*) about 25 per cent, or 5,000,000, have defective vision; (*f*) about 25 per cent are suffering from malnutrition, in many cases due in part at least to one or more of the other defects enumerated; (*g*) over 30 per cent, or 6,000,000, have enlarged tonsils, adenoids, or enlarged cervical glands which need attention; (*h*) over 50 per cent, or 10,000,000 (in some schools as high as 98 per cent), have defective teeth which are interfering with health. Altogether about 75 per cent of the school children of the country need attention to-day for physical defects which are prejudicial to health and which are partially or completely remediable. Of this number, several million children possess each two or more of these handicaps to success.

Medical inspection can do much toward alleviating these conditions. But, as school hygiene includes much more than health examinations for contagious disease and chronic physical defects, such other essential factors as the following must receive careful attention: (*a*) The maintenance of a sanitary, healthful school environment; (*b*) hygienic instruction and school management with particular attention given to the influence of the teacher upon the nervous health

of the pupils; (*c*) the effective teaching of health and hygiene to all the pupils in the schools; (*d*) the rational supervision and direction of play, games, athletics, and the various forms of physical education. This health instruction and work must be closely related to and include the homes of the pupils, the playgrounds and gymnasias, and the general problems of health in the community.

The importance of showing a community its health needs was emphasized by other speakers. "Education of the public should be by means of charts, uniform sanitary surveys, photographs, before and after contrasts, exhibits, moving pictures, house-to-house explanation, circulars of instruction, newspaper stories, special emphasis at budget time, and reporting methods which guarantee the efficient use of money allowed." "No public expenditure makes a stronger appeal to the imagination, conscience, and pocket-book of a general public than expenditure for school health." But a community needs instruction along these lines so that the people may know what is needed and understand the dangers of not supplying these needs. They must be made to realize, as one of the speakers indicated, that sweating school children in ill-ventilated, unsanitary, overcrowded school-rooms is no more respectable or safe than "sweating" similar children in factories and workshops and that it is worse to have obstructions to ventilation in a school building than to have obstructions to breathing in a child's throat.

VOCATIONAL EDUCATION.—The demand for training which is motivated by vocational purpose gives two rather distinct types of endeavor, according to the views of Professor Frank M. Leavitt, of the University of Chicago—"one within the present school system and the other in a measure outside of, if parallel to, the existing schools. Generally speaking, the prevocational schools and vocational high schools fall under the first classification, while the separate industrial schools and the trade schools come under the second. The purpose of prevocational industrial training in the seventh and eighth grades seems to be to secure the revision of the course of study in the upper elementary grades, both as to content and method, in order that the work given therein may appeal to those children

whose vocational interests are drawing them away from the school altogether, and at a time when their education is extremely limited and fragmentary. While intermediate, independent, or separate industrial schools have much in common with the prevocational schools, there is one radical difference. They do not commonly prepare their pupils for high schools. The vocational high school retains many if not most of the features of the traditional high school, giving, however, the maximum amount of training in vocational subjects possible without jeopardizing the pupils' opportunity for advanced training in higher institutions of learning. Neither the prevocational school, the separate industrial school, nor the vocational high school claims to teach a trade. The trade school, generally speaking, does not claim to teach anything else." He also distinguished between coöperative schools and continuation schools which have the vocational motive by saying that the former, if organized on the half-time basis, are planned for those still in the school system but who, feeling the pressure of economic conditions, receive systematic instruction in the science and art of industry in the schools and practical shop experience by working for an employer during equal and alternate periods. The continuation school, on the other hand, is designed for those outside the system and who can give only a minimum amount of time to the school work, usually not over four to eight hours a week.

In Massachusetts the intent of the law pertaining to industrial schools was stated to be "to promote by State aid the development of a new type of school which, in fitting for wage-earning occupations, shall be unhampered by the practices and methods of the regular schools. This school aims first to discover what its pupils are capable of doing and what line of trade work, if any, they are fitted to pursue. The aim is to offer a four-year course, three years in the school and the fourth in the trade, under the supervision of the school." Such a school would therefore form a separate or independent industrial school. And it is claimed for such schools that they are reaching those who are hopelessly lost to other types of schools. These schools may vary in grade from those having as their object the training of intelligent skilful workmen to those which offer the

more advanced technical training needed for foremen and superintendents, or which prepare for the engineering departments of the university or for the special schools of technology. There has been a great deal of complaint on the part of manufacturers that they find it difficult to secure properly trained foremen and superintendents, and that in many instances the best men that can be secured are foreign trained. One of the difficulties has been the lack of proper schools for such training; another has been the difficulty of getting teachers who with adequate knowledge and shop experience can also adequately instruct others. Technical schools of all sorts "are now suffering as much from a lack of trained men for the teaching staff as from all other causes."

An interesting statement in regard to what should be the aim in industrial education in the schools was made by Superintendent H. B. Wilson, of Decatur, Ill. The school, he said, must seek to render efficient and intelligent all those who are to serve society through participation in the industries. And in solving this problem it should be guided by the fact that skilled labor is of two widely different kinds,—“that which depends mainly on habit and that which depends mainly upon initiative.” While we find a great variety of ability and all kinds of combinations of habitual action with initiative, the great purpose of the school should be to develop initiative.

L. D. Harvey, President of Stout Institute, Menomonie, Wis., made a strong plea for the vocational education of girls. “Girls and women constitute one-half the population of the country. Home-making is, and will be, the principal vocation for more than 80 per cent of this number. No other vocation can be named upon which it is absolutely certain that so large a percentage of the population will enter. No other vocation is so important for the welfare of the individual, society, and the nation as this. No other demands a wider range of special and general knowledge, nor greater skill in its use in order to achieve success.” In addition to this, 8,000,000 girls and women in the United States are wage earners outside the home. “Special education is needed for them for increased efficiency, resulting in greater earning capacity and better

social and industrial conditions." Then, too, it must not be forgotten that the great majority of these must also be prepared for the home duties which they sooner or later will assume through marriage. Hence efficiency in the home is, after all, the one thing for which every girl should be educated, no matter what other education she may receive. "Girls can be taught and trained in the public schools, in continuation schools, and in the higher educational institutions, for efficiency in this work."

The great question of how to guide young people into a wise choice of vocation received interesting treatment from Meyer Bloomfield, Director of the Vocational Bureau in Boston, and others. In the organization of vocational guidance a great deal of attention must be paid to investigation covering the three great fields of the child, his environment, and the vocations; and this investigation must be both preliminary and continuous. The unorganized social influences known as the environment have a tremendous influence on the growing child. And yet in classifying such influences one scarcely knows where to begin, said Assistant Superintendent George P. Knox, of St. Louis. However, investigation, organization, coöperation, and devotion—these four things will without doubt eventually enable us to get hold of the essential things in the guidance of our youth. Meyer Bloomfield said that reflection must convince one that personal and individual effort, however invaluable, cannot deal adequately with modern conditions. "Tenement homes, a large immigrant population as yet unacquainted with the possibilities of the new country, large school classes, and complex conditions of commerce and industry give rise to a situation which, besides friendly sentiment, needs facts, organization, and even science to understand and cope with it." It is the business of the lower as well as the higher schools, of the well-to-do as well as the poor, to see that our educational expenditures in behalf of our young people are well invested. "Until society faces the question of the life careers of its youth, the present vocational anarchy will continue to beset the young work-seekers." It is well to remember that it is not so much securing proper employment for its youth that should interest a community as it is that they make

their best social investment for themselves and for the community. Underlying all the efforts of any vocational bureau or other organized effort so to guide young people, should be the realization that a longer period in school and continued training are fundamental to achievement in every desirable occupation. Economic pressure forces some children out of school as soon as the compulsory attendance laws permit, but it is well known that thousands of children drop out of school through no real need to do so. "If any fair number of those so leaving were in occupations where they could develop, learn something, amount to something, matters would not be so serious. But this is not the case. How can untrained and unguided children find their best opportunity?" The school and the employer must stand together in furnishing information and guidance, in demanding of the individual wisdom of choice and efficiency in position. "School life and working life must coöperate to make of the student an efficient producer, to make of the efficient producer a responsible consumer and a serviceable citizen."

If the pupil cannot be interested and retained in the school until efficiency is attained, then the coöperative plan of industrial education and the continuation school have their opportunity. Superintendent Adelbert Safford, of Chelsea, Mass., said that in all industrial education there are several parties interested,—the manufacturer, the workmen, the pupils, and the public. The interest of the pupils may be considered as a part of the interest of the public, and the three remaining parties should be active participants in the management of a truly coöperative school, although the success of the school will depend largely upon the extent to which they merge their interest into one control. The program of work usually embraces cultural work, preliminary trade training, and trade training. One week in the school followed by one week in the factory is the usual plan of alternation. The aim of the coöperative school should be industrial efficiency. "Industrial efficiency, functioning in the person, implies such fundamental virtues as diligence, responsibility, self-control, and coöperation. Industry and right relations with fellow-workmen are an excellent approach to right rela-

tions to the community and the State." Then there is also a culture, resulting from doing and being, that is more vital than the culture derived from books alone. This is the culture that industrial education should endeavor to impart to those who have gotten out of the reach of the influence of the traditional streams of liberal education.

The continuation school is the effort of the community to reach those who have left the school. And it is needed fully as much for girls as for boys. "The age of 14 to 16, inclusive, is recognized as the period of rapid development of interest in self and life. There is need for care at this age in respect to the social life. . . . At this age the question of what the children learn is not as important as what they get by association, inference, and intuition." Their employers have learned by long experience that young persons of this age do not think—at least about the interests of their employer or the care of his machinery. Hence they are given the work that day after day is the same. The very monotony helps to breed the toxin of fatigue. "The relief from that toxin is sought in amusement, and the amusement at hand is not the right sort." To get these young people into the continuation school, and to develop them into thoughtful, morally and socially right intentioned and efficient persons, is the only safeguard for them and for society.

AGRICULTURAL EDUCATION.—The competent farmer in these days must be not only an expert in farming but also a sound and progressive business manager. Such skill and business ability "require active participation during the learning period in productive farming operations of real economic or commercial importance." To provide such participation for the learner, both as manager and as worker, simultaneously with the class-room instruction, is one of the greatest problems of any form of vocational education. R. W. Stimson, agent for agricultural education of the Board of Education of Massachusetts, said that perhaps the best use to which an agricultural school, large or small, can put its own land and equipment is that of demonstration and experiment. "It is believed that home farm work, supervised by the school, where conditions are at all like those in Massachusetts, might well be substi-

tuted, as far as possible, for the present methods of much work, little work, or no work at all of a productive and managerial nature. Agricultural science brought immediately to bear on actual farm practice, and combined with commercial agricultural enterprises conducted by the boys themselves, is a promising solution of our most pressing problem in this field of vocational training." This, through a series of complete and well-regulated projects, gives boys actual experience and also satisfies the independent money-earning cravings of certain boys, thus inducing them to remain in school. It provides for the two distinct phases of agricultural instruction that need to be provided for,—the art of doing the various things demanded by farm-life and learning of the sciences on which these various things depend for their explanation. But Professor G. F. Warren, of Cornell, called attention to the fact that agriculture is itself a science and that probably half of the best teaching of agriculture is not the application of any science except the science of agriculture. "Any school course that pretends to prepare for farming must teach the usual sciences and ought to include in these as many agricultural illustrations as possible, but to try to give agricultural training without agriculture as a separate subject is like Hamlet with Hamlet left out." One of the difficulties encountered in this branch of vocational work is that of securing competent teachers. A. C. Monahan, of the United States Bureau of Education, stated that a large percentage of such teachers have had no training in psychology or pedagogy. And, although the salaries are from 50 to 100 per cent higher than in other secondary school work, it will be several years before the supply of men available as instructors in agriculture will be sufficient to meet the demand.

RURAL EDUCATION.—State Superintendent E. T. Fairchild, of Kansas, said the rural school is the one laggard in the educational procession. This is shown by such facts as: Out of the 12,000,000 school children of the rural districts who constitute a clear majority of all children of school age, less than 25 per cent complete the work of the grades; the teaching body of the rural schools is as a whole immature and lacking in proper training; the school-terms are in general entirely too short to accomplish good results;

the school buildings are poor, insanitary, and ill equipped; the school enrollment is constantly decreasing; supervision is wholly inadequate; the cost of instruction per pupil is higher than the average for the grades; high-school privileges are denied the great majority of these boys and girls; the strong, virile, rural school of a generation ago has gone, and in its place is a primary school weak in numbers and lacking in efficiency; and in general the country boy and girl of this strenuous and complex age, when the best possible education is so necessary, are not afforded equal educational opportunities with their city competitors. These deplorable conditions are due partly to the trend of the rural population toward the cities and the growing percentage of merely tenant farmers; but largely it is due to the fact that the educational thought and effort of our age have been directed toward improving our city school systems and our higher institutions of learning, to the almost absolute neglect of the fundamentally important problem of rural education.

The remedies suggested by Superintendent Fairchild and others are to be found along the line of professionally trained and properly remunerated teachers for these rural schools; consolidation of small schools so that larger and better school buildings and equipments, as well as better grading and more thorough organization, may be effected; a standardization of school equipment, organization, and work that will make possible more uniform conditions and results; closer supervision to realize upon opportunities; and ways and means of furnishing and guaranteeing to every rural district sufficiency of financial support to secure the best possible opportunities for educational growth and development. The United States Bureau of Education was regarded as the proper body to undertake a campaign for the reorganization of the rural school; but the States must assist with funds, for it is evident that the country school must become far more a ward of the State than it is at present if efficient work is to be done. "Organization, support, control, and supervision of the (rural) school on the basis of minor territorial jurisdiction have been proven, the country over, to be hindrances of no mean rank. Local self-government in rural education, that deceptive plati-

tude of the politicians on and off the platform, has meant an insidious growth of local self-complacency, itself the greatest obstacle to the logical and necessary development of the school." Such were the words of Professor Edward C. Elliott, of the University of Wisconsin.

"If we want to get more out of the schools," said Superintendent Fairchild, "we must put more into them. We can never have the best rural schools until we have aroused public interest in them." To secure public interest, organized interest and help from outside the rural districts themselves must be secured to create conditions which will develop and foster a new community spirit. Parents and teachers must be brought together to discuss matters of common interest, and the school must become the great social centre where recreation and culture for the whole community go hand in hand. "Agencies now devoting time and money to social uplift should be invited and urged to join in an effort to investigate thoroughly rural school conditions, to propose remedies, to direct public attention, to suggest remedial legislation. Withal, there must be a nation-wide campaign of publicity and organized help."

The United States Commissioner of Education, Philander P. Claxton, in an address on America's Most Important Unsolved Education Problems, said, "The greatest question with which the American educator has to deal to-day is the rural school. We have been helping the schools everywhere, except in the country, where our best and greatest men and women were born, reared, and educated. But the time has come when the rural schools must be looked after, and for this reason I am going to ask Congress to make a special appropriation of \$40,000 with which to carry on an investigation of their needs. When the faults have been discovered, it will be easy, I believe, to find a remedy. There are in the United States more than 6,000,000 men and women who can neither read nor write. Democracy without universal intelligence of a high order is only the prelude to a comedy, a tragedy, or to both. Hence the great question with us is to educate all our people."

COST OF ELEMENTARY AND HIGH-SCHOOL EDUCATION.—Superintendent E. O. Holland, of Louisville, Ky.,

spoke of the increased cost of elementary education, owing to the two facts (*a*) that most of the special types of schools established within recent years care for elementary children and therefore the funds for them are taken from the elementary budget, and (*b*) that the compulsory education laws have brought about a larger enrolment in the grades. While he believed that no city in the country was spending too much on its elementary schools, he raised the question whether some are not spending relatively too much on their high schools. He instanced, in support of his question, the recent study made by Doctor Updegraff, of the Bureau of Education, of the expenses of the school systems of cities of 30,000 and over, which shows that the median city of the 103 listed shows an expenditure of \$2.16 per pupil upon its high schools for every dollar spent in the education of the elementary school child, while some of the cities listed spent as much as \$2.60 per high school child as against every dollar spent on the child in the grades.

"A city that pays its kindergarten teachers as much as, but no more than, its cooks receive," said Superintendent William E. Chancellor of Norwalk, Conn., "displays its contempt for the school idea. . . . A city of 100,000 that pays its superintendent less than the ordinary bank cashier is paid, simply and clearly displays therein its contempt for education. Among other important criteria of efficiency are the actual salaries paid the educational persons. Unlike the salaries of janitors, these are mainly matters of sentiment, not of demand and supply. Cities that pay the highest salaries thereby show their affection for their schools. Here is another striking instance in which the efficiency of the city school system is both cause and effect."

CHAPTER XIII

MEETINGS (*Continued*).

The International Congress on Hygiene and Demography.

THE fifteenth meeting of this Congress, but the first held in America, met in Washington, D. C., during the week beginning September 23. Among the more than 2000 delegates were men with international reputations on questions involving the safeguarding of health. A number of important discoveries which show the activity and painstaking effort of medical men were announced at the meeting. According to Guy E. Mitchell, in an article in the *Review of Reviews* for November, these discoveries "should give a mighty impetus to the rapidly growing movement for better sanitary conditions, bringing about a better popular understanding of hygienic principles, and accomplish a standardization of hygienic methods throughout the world." The importance of wide-spread health knowledge and health practice was emphasized by Doctor Frederick Zahn, of Munich, Germany. He referred to the health and vigor of a nation as its best capital—the kind of capital that yields the highest interest and compound interest. "The people and the people's strength is the greatest asset of the nation," he said. "It is not a mass, not a negligible quantity, but organic, national capital whose further meaning represents the foundation of culture and of commercial productivity. Judging of the wealth of a country to-day depends to a large extent upon the quantitative maturity of the inhabitants. To make the greatest use and to secure the greatest developments of the people, it is necessary, therefore, to have a systematic conservation of the national capital; and the interest and compound interest of the capital represented by the people must be obtained without diminution of the intrinsic value of this capital." He also added that the foundation of every far-sighted social policy

must be based more on energy-reserve than on money-reserve, and that the aim should always be to secure the greatest possible reserve stores, in every individual of the nation, of bodily and mental force and power, as well as of physical and moral health. He especially emphasized the need of conserving the health and moral welfare of women if the nation wishes to retain its greatest capital. Good citizenship is at once menaced by any other course, because women, as mothers, educators, and the souls of the nation's homes, are by far the most important factor.

Doctor Harvey W. Wiley, in speaking of the conservation of man in so far as the prevention of disease is concerned, said that diseases naturally divide themselves into two classes,—those which are communicated and those which are produced by the conditions of the personal environment. By segregation and an entire removal of all germ-carrying agencies we can remove the former, and by entirely sanitary conditions we take away the cause of the latter. By these means and the living of the kind of life that promotes physical vigor, the death-rate can be greatly lowered from the present death-rate, which he stated to be between 15 and 16 per 1000. The average length of life, which is now in this country about 44 years, he said also could thereby be greatly increased. "Why should we be content," he said, "with an average life of forty-four years? There is historical evidence to show that man's greatest activities are developed with experience and that the age between 60 and 70 is the most productive for one who has lived in accordance with nature. It is shown from statistics that we die sixteen years before we reach the maximum of usefulness of man. I would like to see more old age. I would like to see more men and women with gray hair and more wrinkled faces than I can see to-day. To all this objection may be made that a place must be made for the young men and women; that the old man and woman keep the young from development and usefulness. But to this I reply that there is infinite opportunity for good work offered to all. If we can secure a race free from disease, endowed with all those qualities of mind and body which make for human efficiency, we need not ask that every one become eminent and wealthy, but each can

perform the duties which come to him in a way to develop a uniform excellence of the human race. We have room in this country for millions more of people. We welcome the infant and the child, but let us keep the man and the woman. There is room for all."

NUTRITION OF SCHOOL CHILDREN.—Doctor S. Josephine Baker, of Chicago, declared that serious school problems arose from the lack of nutrition for the children of the public schools in the poorer sections of our large cities. She said that often the poor mental showing made by children is directly traceable to the fact that they are suffering from a lack of proper nutrition. Statistics of an investigation made by the University of Chicago in the stock-yards district of that city showed that fully 50 per cent of the school children there are retarded in their mental development by this cause. These statistics also showed that the children are physically deficient in proportion to the lack of good nourishing food.

Doctor Max Rubner, who was introduced to the congress as the "Doctor Wiley of Germany," delivered a special address on the Nutriment of the People. "One of the greatest, if not the greatest, of problems now confronting mankind," said Doctor Rubner, "is that of providing the race with proper nourishment. It is of such importance, in fact, that every large city should have a department in its government clothed with plenary powers of caring for this branch of the people's welfare." He also told the convention that malnutrition in children, even from homes where it was absolutely unnecessary, had become so general and had reached such a critical stage in all parts of the world that, unless the State and municipal authorities made provisions to enforce proper feeding of the younger generation, it was an open question if the human race was to be saved from degeneration. The doctor said further: "Then, too, cooking is a lost art so far as most women in this modern age are concerned. This condition should not be so, and is a big factor in the high cost of living. House-keeping is a noble art, an interesting and high vocation. Cases of actual starvation are not numerous, but cases of under-nourishment are common to an extent that is horrifying."

SEX HYGIENE.—Instruction in the home and in the schools in matters pertaining to sex was earnestly advocated by Doctor Elinor C. Folkmar, of Washington. "A vexing question," she said, "is when and how to tell the children. When a child is old enough to ask a question he should have a truthful answer within the limits of his understanding. . . . If the parent tells the child a falsehood or gives an evasive answer about these things, the child is apt to think that the perverted tales he hears from older children must be true, and that this is the reason the mother does not want to talk about the matter. There is thus created a gulf between parent and child that it is hard to bridge over later. Do not wait for the child to seek information. Teach the facts of reproduction when teaching other facts about plants and animals. Then it will come natural, and not be a question of peculiar interest."

Various speakers referred to the importance of having children taught matters relating to sex hygiene and the results of vicious sex habits before they have arrived at the age where they can contract such habits. The opinion seemed general that knowledge of this character should be imparted to children in the proper manner rather than that they should be allowed to glean their information from vicious companions. But there was a decided division of opinion as to whether such subjects should receive consideration in the schools and by general lectures, or whether it would not be better to urge parents to impart the instruction and furnish them the necessary information and guidance to enable them to do it properly.

EXHIBITS ON SOCIAL DISEASES.—The exhibits illustrating the effects of social diseases were strongly condemned by Doctor Ira S. Wile, of New York City. As such exhibits are to be found in a more or less permanent form in many cities of our country, what Doctor Wile said should receive careful consideration. The purpose of the exhibits, as stated by Doctor Vernon M. Cady, of the American Federation for Sex Hygiene, was "for the sole purpose of giving the truth regarding the ravages of these diseases to the public. We contend that in presenting definite scientific, and accurate information on the subject of social

disease, we are giving the crusader against white slavery his most potent weapon." But as such information can be gotten more effectively in the medical school, Doctor Wile's impressions were that the exhibit was made more for the purpose of arousing a deterring fear in the minds of those who might see the exhibit. And on this score he said, "I don't believe that fear is a high ethical concept to appeal to. For a single type, fear may be an efficient correctional influence; but for the generality of manhood, never. Our efforts must be turned, not toward dragooning the young to do right, but toward the inculcation of that right-thinking which leads to right doing. Moreover, appeal to fear is based on a wrong psychology. When the young are struggling between a clash of impulses—between the desire to do an illicit act and the fear of the consequences—more often than not desire conquers fear. Education can accomplish only a measure of good in the suppression of social disease. In the largest measure, it can be eliminated only by eliminating the causes—by doing away with squalor, with wretchedness, with overwork, under-feeding, starvation wages, alcoholism, ignorance. Till that quasi-millennium arrives, however, our efforts must be along the line of moral training. In particular, the education of girls is the crux of the problem. When the young women refuse to marry unless the bridegroom produces a physician's certificate of health, then we will have solved the problem."

THE ABUSIVE USE OF DRUGS.—On the use of drugs, Doctor Harvey W. Wiley, who has done so much for the protection of the food supply of the country, had the following to say: "I am far from believing that drugs are an efficient remedy for all human ills; in fact, I am convinced that they are not. They are at best only adjuncts, except in those cases where specifics have been discovered. In this connection I cannot refrain from alluding to one of the greatest dangers of drugs, and that is, their indiscriminate use by the laity. The fakers that pretend to find sovereign remedies for every disease inflame the minds of the people and deceive them into indiscriminate drugging." Drugs, he said, should be administered only by physicians who have an expert knowledge of the human body and its operations.

The medical association's exhibit showed analyses of several widely advertised nostrums, one of which, guaranteed to be a sure and reliable nerve tonic and flesh builder, is made of nothing but cottage cheese to which has been added a very small amount of glycerophosphate of sodium. Others were shown to be full of narcotics, such as opium, codein, and the like. A well-known "beauty cure" was shown by analysis to contain large quantities of a salt of mercury which, used continuously, is capable of producing malignant facial disfigurements. Many other patent medicines that are widely advertised were shown, by analysis, either to be absolutely worthless or to contain highly harmful habit-forming drugs.

Conference for Education in the South.

The fifteenth annual Conference for Education in the South was held in Nashville, Tennessee, April 3-5. This annual conference grew out of a meeting of some Northern and Southern men who were interested in the educational problems of the South and who first met in an informal way to consider these problems at Capon Springs, West Virginia. Out of that meeting has grown one of the most interesting and progressive conferences on education that is held each year in the entire country. The *Outlook* for April 20 says of the Nashville meeting: "To how many will it seem an indulgence in extravagant language to say that the Northern visitors who had the privilege of attending this Conference came back with the conviction that the American public school is being made by the people of the Southern States, and may be made in the rest of the country, the centre of one of the greatest missionary movements that the United States has ever seen? Pennsylvania, New York, and New England may have to call upon the Southern States for missionaries to show us of the North how the work of vitalizing common-school education may be extended to our own rural and city public schools."

At the Conference there were gathered together, for three days, university presidents and professors, State, city, and county superintendents, men and women teachers in the public schools, statesmen, preachers, journalists,

farmers, and representatives from the States and from the National Government as well as from various educational, civic, and social organizations. And matters of far-reaching general importance, as well as of more specific and restricted value, were presented in addresses or discussed at round-table meetings. One of the latter considered the results and most effective means of conducting the Boys' Corn Clubs and the Girls' Tomato-Canning Clubs inaugurated under the auspices of the Department of Agriculture by the late Doctor Seaman A. Knapp. That even these discussions were inspiring and valuable, and in their influence reached far beyond the raising of corn or the canning of tomatoes, is attested by a clergyman of national reputation who attended one of these "corn conferences." He said that he had been more impressed and affected by the spirit of social service and human brotherhood displayed by the farm demonstrators and teachers, who are engaged in the work of making the education of the rural public school a vital socializing force, than he had been by almost any revival meeting that he had ever attended. And he might well have added that, with these leavening influences at work in so many places in our country, the social as well as the economic outlook should be hopeful enough to please even the most optimistic.

In his address of welcome, Governor Hooper said that he understood the purpose of the Conference to be the prevention of waste—not the waste of material resources, "but the waste of the brain and the muscle and time and life of Southern boys and girls. And these are the most precious assets among all the resources of the richest and best country on earth. Nor is it disloyal or unpatriotic of me to say that this of all our resources has been most neglected." The unused or misused material resources he said could to some extent be remedied. "Not so the wasted energies of men. The boy who is compelled to pass through life with undeveloped brain, untrained hand, and uncultured soul is but the shrunken image of what he might have been. His personal deprivation is deplorable and the loss to society is great." The Commissioner of Education, Doctor Claxton, added to this desire for the careful education of the youth of the South the hope that the bene-

fits of education might so be extended that the mountain men and women of the South would not end their days in illiteracy. Not only until all the States of the South pass and carry out compulsory education laws and establish and maintain such excellent schools that no child can escape education, but also not until auxiliary efforts have carried education to the adults, will the dream of these educational pioneers for a renewed South be fulfilled.

There was a strong feeling in the Conference that, at least so far as the South is concerned, democracy and the welfare of the nation depend for their extension upon the success of the farmer and the country school. Some of the things emphasized along these lines were:

1. The need of ready financial assistance for the farmer. At present many farmers do not have the means of buying badly needed farming implements nor for hiring adequate help. In some communities it was stated fifty per cent of the farmers were absolutely without credit. And in most places farmers are obliged to pay burdensome interest for all loans. European credit systems are being studied with the hope that they may be adapted to meet these needs of proper capitalization. Raising the great mass of the farmers above the credit line should of itself produce wonderful results.

2. The need of coöperative clubs both in buying and selling was greatly emphasized. Twenty-five farmers were regarded as sufficient to begin the movement in any district, and "the principal need at the present time is for some one person in each community to lead off; others will join speedily."

3. One of the chief benefits of the various contests in raising farm products, or in farm housework, was stated to be the good effect in dispelling the traditional folly that white boys and girls in the South must leave all manual work to negroes. The purposes of the demonstration work given in connection with these contests were stated to be: (1) To reveal proper methods of farming in thousands of communities; (2) to teach the principles of agriculture and horticulture in a definite and practical manner; (3) to teach the love of plant life and the value of the soil; (4) to dignify labor and make it intelligent and effective; (5)

to give purpose and direction to youthful lives at the opportune time; (6) to teach earning, owning, and accounting; (7) to help the family by having all its members contribute to its support; (8) to show the value of rivalry and coöperation in production and marketing of crops; (9) to vitalize school work; (10) to develop manhood and womanhood.

4. Bradford Knapp, director of the farm demonstration work of the National Department of Agriculture, said: "Only a paltry two per cent of the youth of the land can ever hope to get an education in an agricultural college. Agricultural students do not represent one per cent of the agricultural population of the country." Therefore, he said, information must be taken to the homes and communities of the farmers. "The farm demonstration work of the Department of Agriculture," he said, "was started eight years ago, and it has expanded until it teaches 100,000 farmers, 75,000 boys, and 25,000 girls per annum. We claim the largest university in the world, with a faculty of 800 and an enrolment of 200,000 students." Education, he claimed, requires personal contact between the teacher and the one seeking information.

5. One of the things especially noticeable in the discussions of rural problems was that the great fundamental need of our rural schools is the necessity of teaching in terms of the child—of bringing into very close and sympathetic connection the school, the homes, and the farms of the community, by grouping many of the lessons and activities of the school around the needs and possibilities of the community in which the school is located.

Doctor John Lee Coulter, of the Census Bureau at Washington, referred to the changes that have occurred in rural conditions within the last hundred years. A hundred years ago, he said, there were practically no cities and almost all the people lived in the country districts and on farms. Here they produced the things they ate or used for clothing or in their homes. They also themselves used the things they produced. They sold comparatively little of what they produced and likewise purchased but few things because their wants were few and simple. The change that has come over our country during these hun-

dred years is, however, the greatest as far as economic problems are concerned that has ever occurred in any nation. The new census will probably show that not over 30 million of the 92 million of our population now live on farms. It follows, therefore, that this one-third who live on farms must produce not only for themselves but also for the other two-thirds who live in the towns, villages, and cities. Hence, the high price of food will be apt to remain until this condition of things has had time to attain a better adjustment. On the other hand, farmers now buy from the markets great quantities of things which they formerly did not use at all or which if they did use they made themselves.

A century ago the problems of the farmer centred around farm management and household management. He was interested in Government and in some outside affairs, but only to a slight extent. The new conditions still compel him to think of farm management and household management. But now he is also called upon to take a deeper interest in Government and in the religious, social, and educational problems which years ago were much less complex than at present. In addition to this he now must give serious attention to such new problems as marketing, storing, shipping, insuring, manufacturing, and buying. To do these things well requires coöperation, because it means establishing warehouses, cold-storage plants, creameries, and all the other appliances and organizations which permit buying and selling on a large scale.

But more people are needed to carry on this work on the farms, and, unfortunately, rural population is decreasing. On this subject President Charles W. Dabney, of the University of Cincinnati, said: "Everywhere the urban population is increasing ahead of the rural, and in most of the old States the total rural population is steadily decreasing. More ominous than the trust menace, the currency question, or the labor problem, is this drift of the people away from the farm; for, as Mr. James J. Hill puts it, 'Land without population is a wilderness, and population without land is a mob.' The resources of our soil and climate are limitless, and the country is from every point of view a far better place to live in than ever before; yet

for some reason the young people in all the older States are escaping from the farms. Why? Because the attractions of the town are greater than those of the country. How to change this condition is the problem of the hour."

In closing, the Conference adopted the following resolutions:

"The Conference for Education in the South is a gathering of workers and of groups of workers who believe in the education of all the people at the expense of all the people. Fifteen of these groups have come together at Nashville to take stock of the year's achievement and to plan for the year ahead. Through them the activities making for social and educational progress in fifteen Southern States are furthered. Democracy must look to the country school for its extension. Therefore, we believe that the Conference has acted wisely in devoting a large share of its energy to the ways and means of developing the school the farmer needs. We are coming to realize that the activities of the school must reach beyond the school-house, that the school-yard is the neighborhood, county, or the State. Therefore, it gives us satisfaction to note the efforts to unify all the educational forces from the elementary schools to the university.

"Among the questions considered in our conferences were: 1. The training of farmers on their farms. 2. The training of housewives in their homes. 3. The training of teachers by supervision while at work in their schools. 4. The safeguarding of the health of the people by salaried county health officers. 5. The awakening of the cities to a sense of their obligations to participate in the efforts for rural upbuilding.

"Looking to the solution of these questions, it is gratifying to note the efforts of the commissioner of education to broaden the usefulness of the national bureau of education, especially through the development of the country school."

The whole Conference seemed to be permeated with the spirit that should characterize every meeting where the welfare of our boys and girls is under consideration—a spirit which was so evident in the closing words of President Ogden's opening address: "We are here in the in-

terest of our common country and our common humanity by the command of a little child. The humbler and more needy the child the more absolute is the command. We are here in obedience to the spirit of holy service that marks the noblest religious expression of the expanding period. If we bring our best and most mature attainment to the service of the child, we will create the highest blessings for which this Conference stands." So much of the spirit and wisdom of these conferences have been due to the initiative and zeal of President Robert C. Ogden, of New York, that he was unanimously and enthusiastically re-elected to the position which he so faithfully filled for so many years. Although in his death the cause of education has met with a serious loss, as friends of the school we may well find in his life, as well as in the lives of other recent leaders in the great movements for social uplift, accomplishments so full of wisdom and promise that they should effectually renew our vigor, multiply our effort, and strengthen our courage and determination.

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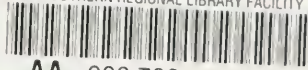
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